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AN AMERICAN may be allowed some honest pride in the beauty and profusion of fine forest trees, natives of our western hemisphere. North America is the land of oaks, pines, and magnolias, to say nothing of the lesser genera; and the parks and gardens of all Europe, owe their choicest sylvan treasures to our native woods and hills.

But there is one tree, almost everywhere naturalized in Europe—an evergreen tree as pre-eminently grand and beautiful among evergreens, as a proud ship of the line among little coasting vessels—a historical tree, as rich in sacred and poetic association as Mount Sinai itself—a hardy tree, from a region of mountain snows, which bears the winter of the middle States; and yet, notwithstanding all these unrivalled claims to attention, we believe there are not at this moment a dozen good specimens of it, twenty feet high, in the United States.

We mean, of course, that world-renowned tree, the CEDAR OF LEBANON: that tree which was the favorite of the wisest of kings; the wood of which kindled the burnt offerings of the Israelites in the time of Moses; of which was built the temple of Solomon, and which the Prophet EZEKIEL so finely used as a simile in describing a great empire;—"Behold the Assyrian was a Cedar in Lebanon, with fair branches, and with a shadowing shroud, and of a high stature; and his top was among the thick boughs. His boughs were multiplied, and his branches became long. The fir trees were not like his boughs, nor the chestnut trees like his branches, nor any tree in the garden of God like unto him in beauty."

The original forests of this tree upon Mount Lebanon, must have been truly vast, as Solomon's "forty thousand hewers" were employed there in cutting the timber used in building the temple. It is indeed most probable that they never recovered or were renewed afterwards, since modern travellers give accounts of their gradual disappearance. Such however is the great age and longevity of this tree, that it is highly credible that the few existing old specimens on Mount Lebanon, are remnants of the ancient forest. LAMARTINE, who made a voyage to the Holy Land, and visited these trees in 1832, gives the following account of them:

"We alighted and sat down under a rock to contemplate them. These trees are the most renowned natural monuments in the universe; religion, poetry, and history, have

all equally celebrated them. The Arabs of all sects entertain a traditional veneration for these trees. They attribute to them not only a vegetative power, which enables them to live eternally, but also an intelligence, which causes them to manifest signs of wisdom and foresight, similar to those of instinct and reason in man. They are said to understand the changes of seasons; they stir their vast branches as if they were limbs; they spread out and contract their boughs, inclining them towards heaven, or towards earth, according as the snow prepares to fall or to melt. These trees diminish in every succeeding age. Travellers formerly counted 30 or 40; more recently 17; more recently still only 12; there are now but 7. These however, from their size and general appearance, may be fairly presumed to have existed in biblical times. Around these ancient witnesses of ages long since past, there still remains a grove of yellower cedars, appearing to me to form a group of 400 or 500 trees or shrubs. Every year, in the month of June, the inhabitants of Beschieria, of Eden, of Kanobin, and the other neighboring valleys and villages, clamber up to these cedars, and celebrate mass at their feet. How many prayers have resounded under these branches; and what more beautiful canopy for worship can exist!"

The trunks of the largest of these venerable trees, measure from 30 to 40 feet in circumference. The finest and most numerous Cedars of Lebanon in the world, at the present moment, however, are in Great Britain. A people so fond of park scenery as the English, could not but be early impressed with the magnificence of this oriental cedar. It was accordingly introduced into England as early as 1683, and the two oldest trees on record there, are said to have been planted by QUEEN ELIZABETH. The DUKE OF RICHMOND of the year 1761, planted 1000 young Cedars of Lebanon; and nearly all the larger estates in England boast their noble specimens of this tree at the present day. The tallest specimen in England, is that at *Strathfieldsaye*, the seat of the DUKE OF WELLINGTON, which is 108 feet high. Woburn Abbey boasts also many superb specimens, varying from 60 to 90 feet high, *nine* of which measure from 4 to 6 feet each in the diameter of their trunks. But the largest, and, according to LOUDON, unquestionably the handsomest cedar in England, is the magnificent specimen at *Syon House*, the seat of the DUKE OF NORTHUMBERLAND. This tree is 72 feet high, the diameter of its head 117 feet, and of the trunk 8 feet. We give a miniature engraving of this tree (fig. 117,) from the *Arboretum Brittanicum*, and also of the tree at *Foxley*, planted by SIR UVEDALE PRICE, (see *Frontispiece*), which is 50 feet high, with a trunk measuring 4 feet in diameter.

Fig. 117. *The Syon Cedar.*

The finest specimen of this evergreen in the United States, is that upon the grounds of THOMAS ASH, Esq., at *Throg's Neck*, Westchester county, N. Y. We made a hasty sketch of this tree in 1845, of which the annexed engraving is a miniature. (Fig. 118.) It is about 50 feet high, and has, we learn, been planted over 40 years.

It is a striking and beautiful tree, but has as yet by no means attained the grandeur and dignity which a few more years will give it. Still it is a very fine tree, and no one can look upon it without being inspired with a desire to plant Cedars of Lebanon.

Fig 118. *Cedar of Lebanon, at Mr. Ash's, near New-York.*

The most remarkable peculiarity in the Cedar of Lebanon, is the *horizontal* disposition of its wide spreading branches. This is not apparent in very young trees, but soon becomes so as they begin to develop large heads. Though in altitude this tree is exceeded by some of the pines lately discovered in Oregon, which reach truly gigantic heights, yet in *breadth* and *massiveness* it far exceeds all other evergreen trees, and when old and finely developed on every side, is not equalled in an ornamental point of view, by any sylvan tree of temperate regions.

Its character being essentially grand and magnificent, it therefore should only be planted where there is sufficient room for its development on every side. Crowded among other trees, all its fine breadth and massiveness is lost, and it is drawn up with a narrow head like any other of the pine family. But planted in the midst of a broad lawn, it will eventually form a sublime object, far more impressive and magnificent than most of the country houses which belong to the private life of a republic.

The Cedar of Lebanon grows in almost every soil, from the poorest gravel to the richest loam. It has been remarked in England that its growth is most rapid in localities where, though planted in a good dry soil, its roots can reach water—such as situations near the margins of ponds or springs. In general, its average growth in this country in favorable soils is about a foot in a year; and when the soil is very deeply trenched before planting, or when its roots are not stinted in the supply of moisture during the summer, it frequently advances with double that rapidity.

Although hardy here, we understand in New-England it requires slight protection in winter, while the trees are yet small. The shelter afforded by sticking a few branches of evergreens in the ground around it, will fully answer this purpose. Wherever the Isabella grape matures fully in the open air, it may be cultivated successfully. The few plants that are offered for sale by the nurserymen in this country, are imported from England in pots, but there is no reason why they should not be raised here from seeds, and sold in larger quantities at a reduced price. The seeds vegetate freely, even when three or four years old, and the cones containing them may be easily obtained of the London seedsmen.*

The *cone* of the Cedar of Lebanon, (of which fig. 119 is a reduced drawing,) is about 4 inches long, and is beautifully formed.

* Mr. Ash presented us with some cones from his tree in 1844, the seeds from which we planted and they vegetated very readily. They should be sown in the autumn, in light, rich soil, in broad flat boxes about four inches deep. These should be placed in a cellar till spring, and then kept during the summer following in a cool and rather shaded situation—the next winter in a cellar or cold pit, and the succeeding spring they may be transplanted into the nursery

The spring is the better season for planting the Cedar of Lebanon in this climate. When the small trees are grown in pots, there is no difficulty in transporting them to any distance, and as the months of September and October are the best for importing them from England, we trust our leading nurserymen who are now importing thousands of fruit trees from London and Paris annually, will provide a sufficient stock of this most desirable evergreen for the spring sales of 1848. If the Cedar of Lebanon does not become a popular tree with all intelligent planters in this country, who have space enough to allow it to show its beauties, and a climate not too inclement for its growth, then we have greatly overrated the taste of those engaged in rural improvements at the present moment, in the United States. The only reason why this grandest and most interesting of all evergreen trees, which may be grown in this country as easily as the hemlock, wherever the peach bears well, has not already been extensively planted, is owing to two causes. First: that its merits and its adaptation to our soil and climate, are not generally known; and second, that it has as yet, without any sufficient reason, been difficult to procure it, even in our largest nurseries. We trust that our remarks may have the effect of inspiring many with an appreciation of its great charms, and that our energetic nurserymen, well knowing that there are thousands of young trees to be had in England, which may be imported *in autumn*, from one to three feet high, and in pots, in perfect condition, will be able in future to supply all orders for Cedars of Lebanon.

Fig. 119. *Branch and cone of the Cedar of Lebanon, one-sixth of the natural size.*

While we are upon the subject of evergreen trees, we will briefly call the attention of our readers to another rare coniferous species, which is likely to prove a very interesting addition to our hardy arboretums.

This is the CHILI PINE, *Araucaria imbricata*, a singular and noble evergreen from the Cordilleras mountains, in South America, where it attains the height of 150 feet.

This pine, commonly known as the *Araucaria*,) from *Araucanos*, the name of the Chilian tribe in whose country it grows,) is distinguished by its scale-like foliage, closely over-laid or imbricated, its horizontal branches springing out from the trunk in whorls or circles, and its immense globular cone, or fruit, as large as a man's head, containing numerous nutritious and excellent nuts. A single fruit contains between 200 and 300 of these kernels, which Dr. PŒPPIG informs us, supply the place of both the palm and corn to the Indians of the Chilian Andes. "As there are frequently 20 or 30 fruits on a stem, and as even a hearty eater among the Indians, except he should be wholly deprived of every other kind of sustenance, cannot consume more than 200 nuts in a day, it is obvious that 18 Araucaria trees will maintain a single person for a whole year." The kernel is of the shape of an almond, but twice as large, and is eaten either fresh, boiled, or roasted; and for winter's use, the women prepare a kind of pastry from them.*

We borrow from the *Arboretum Brittanicum*, an engraving, *one-sixth* of the size

* *Arboretum Brittanicum*, p. 2438.

of nature, showing the young branch and leaves, (fig. 120) and also another (fig. 121,) which is a portrait of a specimen growing

Fig. 120. *Branch of the Araucaria, or Chili Pine, one-sixth of the natural size.*

at Kew Garden, England, taken in 1838, when it was only 12 feet high. We also add from the London Horticultural Magazine, the following memorandum respecting a tree at *Dropmore*, taken last summer, (1846.)

"The following is the height and dimensions of the finest specimen we have of this noble tree, and probably the largest in Europe; height 22 feet 6 inches; diameter of the spread of branches near the ground, 10 feet 6 inches; girth of the stem near the ground, 2 feet 10 inches; five feet above the ground, 2 feet. The tree has made a rapid growth this season, and promises to get a foot higher, or more, before autumn; it is about 16 years old, and has never had the least protection; it stands in rather an exposed situation, on a raised mound, in which the tree delights. The soil is loam, with a small portion of poor peat, and the plant has never been watered, even in the hottest season we have had. A wet sub-soil is certain death to the *Araucaria* in

Fig. 121. *The Chili Pine, or Araucania tree.*

very wet seasons. A plant here, from a cutting, made a leading shoot in the year 1833, and is now 19 feet 6 inches in height, and has every appearance of making a splendid plant."

In Scotland, also, it stands without the slighest protection, and we have before us, in the *Revue Horticole*, an account of a plantation of these trees at Brest, in the north of France, a climate very much like our own. The soil is a light sandy loam, poor and thin. Yet the trees, fully exposed, or sheltered only by a small belt of pines, have proved perfectly hardy, resisting without injury, even the rigorous winter of 1829-30, when the thermometer was several degrees below zero of Fahrenheit. "The largest

now measures about 20 feet in height. Its circles or tiers of branches, are five in number, disposed at perfectly equal distances, and closely resembling, in effect, a magnificent pyramid. The stem, the branches, and their shoots are all completely clothed with leaves of a fine deep green ; these leaves are regularly and symmetrically disposed, and are remarkable in their being bent backwards at their extremities, giving the effect, as well as the form, of the antique girandole."

Mr. Buist, the well known Philadelphia nurseryman, who has already distributed a good many specimens of this tree in the United States, informed us last season, that it is entirely hardy in Philadelphia, and our correspondent, Dr. Valk, of Flushing, who has in his garden a specimen 3 feet high, writes us that it has borne the past winter without protection, and apparently uninjured.

We may therefore reasonably hope that this unique South American tree, of most singular foliage, striking symmetry, and gigantic eatable fruit, will also take its place in our ornamental plantations, along with the Cedar of Lebanon and the Deodar Cedar, two of the grandest trees of the Asian world.

TREATMENT OF ESPALIERS.

BY SAMUEL G. PERKINS, BOSTON.

Manufacturing fruit-buds on espaliers, in July and September, to create *bouquets*, or fruit-spurs, close to the lateral trained branches, is an important point in the pruning of this description of trees.

Every one knows that espaliers, or trees trained on trellises or walls, will produce quantities of suckers or wood-shoots, [robbers,] from the sides of their leading branches in proportion to the angle that is given the latter by the gardener, or person who trains them; those branches that are perfectly or nearly horizontal, producing more than those that are elevated to an angle of forty-five degrees, more or less.

On pears trained on the horizontal or Forsyth principle, constant care must be taken to suppress those robbers by continually pinching them at the ends, after they become a little hard or woody, until the middle of July, when the first regular pruning or dressing of that year must commence. This dressing, or summer pruning, if properly performed, will not only prevent these wood-shoots or robbers from taking away a great deal of sap that is wanted for the fruit, and for extending or elongating the main or lateral branches, but also that portion which is wanted for the swelling and maturity of the buds that are seated at the base of these robbers or false shoots, and which are properly situated to produce the best fruit-buds.

Thus if you cut-in, or shorten, all the robbers on the branches, so far as you may want them for fruit, you will throw the sap back on to these buds and increase their size and mature them in some degree for their future destination.

These side shoots in question should be shortened, at the July pruning, down to within four or eight inches of the branch out of which they spring, according to their strength, so as to leave them furnished with

leaves enough to carry on the elaboration of the sap that is wanted to perfect these fruit-buds or spurs.

But while you are preparing to create new spurs to produce fruit, you must cut out those that have already borne fruit to any great extent, and not allow even the most vigorous to be crowded, or left to grow too near to each other, as your fruit will depend on the judgment used in this respect, for its size, beauty and quality.

About the middle of September, when the sap has ceased, in a good measure, to move with effect, all the shoots that you have cut-in or shortened in July, must be cut off down to the buds or fruit-spurs that are already formed near the base of the shoots, which have been thus prepared, in order that they may have all the benefit of the remaining heat of the season to perfect juices, and by its elaborating process to qualify these buds to produce fruit.

If this work be done neatly, the tree will show itself to great advantage the following season, and so on in continuation from year to year, as long as it is well attended to, and will supply you with abundance of the best and handsomest fruit.

But, if your espalier is allowed to run wild, or is carelessly pruned, it will be almost always an unpleasant object and an unprofitable member of your pomonal family.

The foregoing is the manner which I have practiced on my trees, trained on the *Forsyth principle;* [on trees treated according to the French rule a different course is necessary.]

Of the latter of these methods I shall now speak only so far as becomes necessary in explaining my mode of uniting on the same wall, by alternately planting and training trees on the French and English modes, within eight or ten feet of each other, without interfering.

I have now more than one half of a mile of wall, fence, and open trellis, on which trees are trained, including the youngest trees pruned for this mode of culture up to those that have attained their full height and width.

The *Forsyth* trees of large size, are planted from sixteen to eighteen feet apart, and in the centre between them there are trees trained on the *French* principle, with a view to fill up the whole space on the trellis, from bottom to top, in the shortest time possible.

Now as it is best to create only three branches annually on your *Forsyth* trees, with a view to have your tree fruited from bottom to top; viz., two laterals and the one leader or upright, it takes a number of years to complete a tree on this principle, even to the height of eight feet only, for a foot or fifteen inches is the greatest distance allowed between the branches of trees on which the largest sized pears are raised, and eight to ten inches for the smaller sized pears; the lowest branches being within a foot or ten inches of the ground.

A tree therefore that has seven or eight branches in height, will be seven or eight years old as a wall-tree or espalier. These lateral branches must not be trained exactly level on the wall or trellis, but they should be a little elevated, so as to have the end of the branch a little higher than the base or insertion, in order that when it has attained its full length of eight or nine feet, it may be three or four inches higher at the end than at the base.

The trees trained on the French principle, that is on two main branches elevated to an angle of about 45°, will grow so much faster than the Forsyth, that they will be at the top of the wall, before the others are

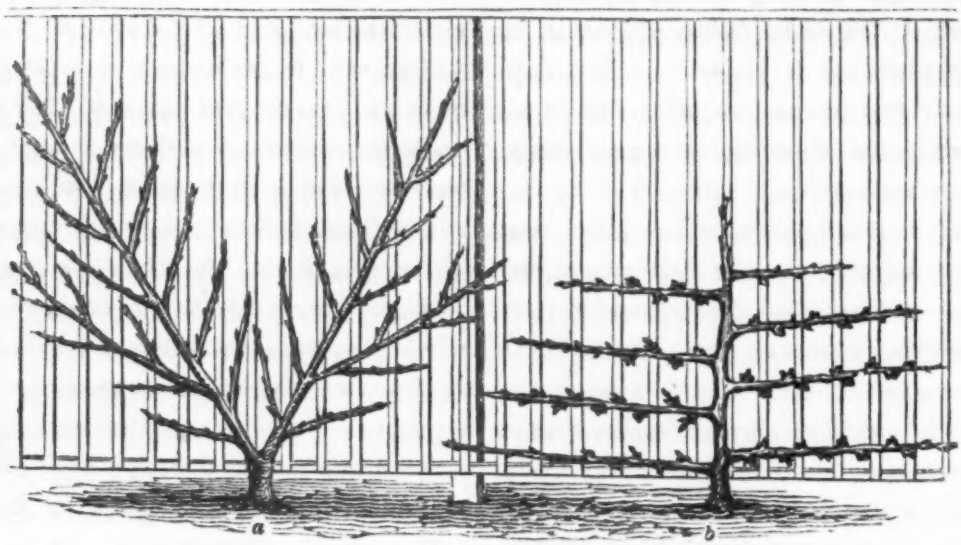

Fig. 122. *Espalier Training, showing the trellis half filled. a, the French mode, b, the Forsyth mode.*

half way up. They are to be treated as "*riders*," and to be made to cover all the naked part of the wall or trellis, until overtaken by the Forsyths, as they slowly advance to their growth. The French trees should be set off from the wall or trellis sufficiently, so that the Forsyth branches may pass behind their stems as they extend laterally, and thus the wall will be completely filled with fruit in the course of time.

The mode of *pruning* these trees is altogether different from that practiced on the *Forsyth* trained trees to create fruit-bearing shoots, and by the time these last have attained their full growth, the *French* trained will have disappeared altogether, as their branches have been successively cut off as their horizontal-trained neighbors encroached upon them.

At this state of the trees, when the *Forsyths* will have the whole wall to themselves, and when they have attained the utmost height that you wish, say eight or ten feet, and the sets of lateral branches are completely formed, the upright leading shoot should be cut out, so that the laterals may receive the additional sap, which has hitherto been consumed by the leading shoot.

SAML. G. PERKINS.

Brookline, near Boston, May 6, 1847.

VITALITY IN SEEDS AND PLANTS.

BY T. S. HUMRICKHOUSE, COSHOCTON, OHIO.

How far *analogy* may be depended upon, for aid or guidance in our researches into the hidden, or the unknown, of the vast field of nature, is a point requiring to be settled. How far it is allowable to go, and where it may be necessary to stop, with this mode of reasoning, needs to be defined.

It will not be disputed, on the one hand, that analogy is good as between similar things; and it is not denied, on the other, that it is bad as between things dissimilar. Analogy would fail us were we to attempt to reason by it from mind to matter, or from matter to mind. It will not hold, or but re-

motely, between animate and inanimate nature. But, in the same order of being, to reason from a kind or kinds to other kind or kinds, is not only allowable, but is always a good, and often the best and surest mode we can adopt.

Thus, if it be alleged, as it has been, that continuous seminal reproduction engenders feebleness and greater feebleness the oftener repeated, in trees; this, as long as it may be regarded as a mere hypothesis, may be well combatted by analogies drawn from other things in the vegetable, and I think also, in the animal kingdoms. But, if it should be once established, by unmistakable *facts* and conclusive experiments, to be *true;* then, analogy must give place to these facts, however it may be opposed to them.

These remarks have been suggested by the article of Mr. Beecher, republished in the October No. of the Horticulturist. I do not, however, understand Mr. B. as rejecting analogy entirely from pomological investigations. Such is neither the main object nor general drift of his argument. There are other things in it requiring to be noticed, as some extracts I shall make, together with a few comments upon them, are designed to show.

"A seed is a bud prepared for one set of circumstances, and a bud is a seed prepared for another set of circumstances—it is the same embryo in different garments. The seed has been called, therefore, a 'primary bud,' the difference being one of *condition*, and not of *nature*.

"It is manifest, then, that the plant which springs from a bud is as really a new plant, as that which springs from the seed; and it is equally true, that a seed may convey the weakness and disease of its parent, with as much facility as a bud or graft does. If the feebleness of a tree is general, its functions languid, its secretions thin, then a bud or graft will be feeble,—and so would be its seed; or if a tree be thoroughly tainted with disease, the buds would not escape, nor the trees springing from them—neither would its seed, or a tree springing from it. A tree from a *bud* of the Doyenne pear is just as much a new tree as one from its *seed*."

We may agree with his main conclusion, without adopting *all* the reasoning by which he arrives at it. In the case of trees, when a variety is once produced and exists, we may believe that it is capable of being continued forever, by means of the bud or scion, or indeed without them, if the first individual can be guarded against all the causes of disease and decay. But the reason must be, that this is an *exception*, to which the analogies of vegetable nature, out of the particular kind, do not reach, and which is, therefore, *suæ naturæ*.

In defining the difference between a seed and a bud, as "being one of *condition* and not of *nature*," he mystifies the subject. When it is said that the difference is one of "*condition*," *natural* "condition" must be intended; and to add to that, "and not of *nature*," is absurd and contradictory; for, how can the difference in "condition" be produced, except in conformity with the law of nature and by some of its processes.

Does not the unrestricted argument prove more than he intends? If it be true, that a bud is but a germ like a seed, only produced by a different development and subject to different laws; and that, like a seed, it is capable of producing a new individual, and more than a mere elongation of the being of the tree from which it is taken; and, if it be true that, by its natural constitution, even while it remains upon the parent, it grows upon the tree as a seed in the

ground, only its connection with the soil, (which is as necessary to it for its nourishment as to the seed,) is through the tree by infinitely nice organizations, instead of communicating directly with it, as is the case with the seed: then it follows, from the last branch of the proposition, that all the buds upon a tree are at most but *annuals;* for they grow but for *one* season, or until they have formed upon them other buds, which, according to the first branch of the proposition, being other individuals, and once beginning to grow, take the place of the former, whose period of duration, therefore, is already past, and the wood and bark made by them during their period, as well as all preceding growths, can, for the future, only serve the purpose of a staff and medium for the latter, which now, and until their course is in like manner terminated, have their connection through them and by their aid with the earth. This, though it seems to be refining too much, yet appears to me to be the legitimate consequence of the reasoning when fully carried out.

That can not be a good argument which, setting out to maintain that *a tree lives forever*, ends in proving that it is rather a "*community of plants*," and that the individual plants are at most but *annuals.*

There are innumerable facts, within the every-day knowledge and experience of woodsmen practically acquainted with our forests, which go to show, that "*the trunk*" of a tree, or wood of previous years, is more than what Mr. Beecher calls "a common support for the united roots emitted by the buds,and upon which they go down into the earth," &c., according to his view. There is a marked and well known difference between the green or living, and the dead wood of a tree. All the living wood in the trunk of a tree is one vast *artery*, through which the ascending sap is conveyed to the branches, by a force similar to, if it be not the very same, with that of *capillary attraction.* And the branches are so many other smaller arteries, proceeding from the trunk, by which the sap is further conveyed to the extremities and to the buds and leaves. Whilst it remains in these latter, a portion not required is thrown off, and another necessary portion is inhaled or imbibed, and added from the air, and the food thus elaborated, is returned on the *outside* of the previous year's wood, and being diffused over the *whole thereof*, is hardened into a new growth of wood and bark—that next the former year's wood being wood, and that next the former year's bark being bark. Thus the tree grows or is increased in size. And the pith or heart at the centre of the tree, as well as its bark on the outside, have also their appropriate functions—one function of the bark being first to absorb and then to exhale or evaporate the watery portion of the returned sap, in which the materials for the woody fibre have been till now held in solution, but which, being taken up and exhaled or evaporated through the bark, the hardening of the returned sap into wood is thus, little by little, or gradually during the growing season, accomplished. In confirmation of all which I need only cite, that, for the making of maple sugar, the tree is bored into the wood, and the sugar-water is obtained from the wood, and is no other than the ascending sap in its first or rudest adaptation: and that, in girdling a sugar maple and many other kinds of trees, as gum, buckeye, lime, beech, sycamore, white elm, &c., although a chip be taken out six inches long and one or even two inches thick all round the tree, it is often the third year after before it will die; and, throughout the first and often the

second season, the young twigs and the leaves are as fresh as ever. Such could not be the case, if the trunk and old wood are no more than a "common support" for the "emitted roots" of the "*community* of plants, which," according to his theory, "uniting together, go down upon it into the earth, and are there put in connection with appropriate food." After the girdling, by which *all* the "emitted roots" of the so called "*community* of plants" are cut off, and their "connection with appropriate food in the soil," enterely interrupted and taken away, *whence* does the said "*community*" obtain its supply for one, two or three years? This is a question for those who advance this theory, and for those who endorse it, to solve and to answer. To me it appears that the supply still continues to be conducted upward to the branches through the trunk; but, that the tree in the end dies, in consequence of the interruption of the returned elaborated sap, which can not now be diffused upon the outside of the wood of former years in the roots;—the growth of which is thus entirely stopped, though they are capable of surviving such stoppage for a time.

I take it that the whole tree is but *one organized body;* and that the stem, pith, wood, bark, roots, branches, buds and leaves are but *parts* of the same *whole; endowed, nevertheless, with certain capacities for continuing the species other than by seed alone.*

In like manner, is it not affirming too much for his argument, when he says, that when the stock is once diseased, so also will be all the trees grown from scions or buds taken from it: and that this extends even to the seed, which, deriving its vitality from the parent, necessarily inherits all the infirmities of the parent and transmits them to its offspring, and so from offspring to offspring downward through all derivatives. It can not be: else, it would establish the *degeneracy* of plants; and, by analogy, of all living creatures, animal as well as vegetable, the continuation of which is provided for by the same modes. And this degeneracy would, moreover, be progressive; for, every advance towards it would be fixed and could never be retraced; and what is there that escapes—what is there that is not affected by disease at some period of its existence?

Before pursuing this matter further, I will make one or two extracts from the "Fruits and Fruit Trees of America," to which what remains to be said will equally apply. The following is from page 7:

"It will be remembered that it is a leading feature in this theory," (the theory of the celebrated Belgian pomologist VAN MONS,) "that, in order to improve the fruit, we must *subdue or enfeeble* the original coarse luxuriance of the tree. Keeping this in mind, DR. VAN MONS always gathers his fruit before fully ripe, and allows them to rot before planting the seeds, in order to refine or render less wild and harsh the next generation. In transplanting the young seedlings into quarters to bear, he cuts off the tap root, and he annually shortens the leading and side branches, besides planting them only a few feet apart. All this lessens the vigor of the trees, and produces an impression upon the nature of the seeds which will be produced by their first fruit; and, in order to continue in full force the progressive variation, he allows his seedlings to bear on their own roots."

How any or all of these appliances, brought to bear upon the production of a given seed, can "produce an impression upon the nature of that seed." so as to

change it, and as it were compel it to give birth to a variety in any way different from what it would have been without them, is to my mind utterly inconceivable, and altogether too mysterious to be received without examination. Is not all this refining process a thousand times gone through with in trees, as they spring up in a state of unaided nature? In the natural state, does not the fruit frequently fall off, from the young trees as well as the old, and before as well as after it is fully matured? Does it not always rot before the seeds find their fit receptacle in the soil in order to their germinating? And if these things have any influence "to refine or render less wild and harsh the next generation," is it never attained in the natural way? Do they not often spring up in thickets? Are not their roots often stinted by a poor soil? Are not the "leading and side branches" often cropped by animals, and broken off by innumerable accidents to which they are subject? And if so, has not all this the same tendency to "lessen the vigor of the trees,"—which appears to be the sole end and aim to be accomplished,—as effectually, happening thus in a state of nature, as if it were designedly performed by the hand of the most skilful operator under garden culture?

The following is from page 557:

"The hardihood of any variety depends greatly upon the circumstances of its origin. When a new variety springs up accidentally from a healthy seed in a semi-natural manner, like the Seckel, the Dix, and other native sorts, it will usually prove the hardiest. It is, as it were, an effort of nature to produce a new individual out of the materials, in a progressive state, which garden culture has afforded."

In this extract, the expressions "semi-natural manner," and "materials, in a progressive state, which garden culture has afforded," appear to convey no very definite idea. No one, I imagine, will suppose, that, had *the* seed that produced the Dix, which sprang up in a chance place without culture in the manner with which all are familiar, been taken to the garden of Mr. Downing at Newburgh, and been by him there planted and reared into a tree under his most approved culture, it would have produced a variety *less hardy* or in any way different from the one that was produced by it in the manner it did grow. Such a belief would be exceedingly unphilosophical.

A seed, though it may be imperfectly developed, yet, if it is not destroyed, if its vitality remains, if it grows, yea in the very act of beginning to grow, it *overcomes*, it *throws off*, it *frees itself forever* from all the weakness, all the disease, and all the imperfection, if there were any, derived from the parent. For what is the seed? The principle of vitality in it we can not indeed comprehend. But we see it, or rather its effects—we realize it—and if *it* is not destroyed so that it but begins to grow, all the rest that is contained within the husk of the seed is only the *nourishment* provided by the Creator, by which the *new being*, in its first vital efforts, is to be sustained for a time, and until it is capable of drawing its support from the soil and from the air. And whatever may have been the disease or infirmity of the parent—whatever may have been the imperfection of the seed—it is only in the amount and adaptation of the nourishment it can supply that it is impaired. If it is incapable of supplying any nourishment whatever, then, vitality in that seed is gone. But, if it is capable of supplying it in any quantity so as to prolong life until it can reach the other sources provided for it by

the Creator in the soil and in the air; then, whenever it begins to grow, though it may be compelled to struggle against an insufficient supply of food for a time, yet, overcoming this, should it be able to overcome it, it is a *perfect* plant, and in all respects identically the same, and having *all* the very same characteristics—of *vigor—health —variety*—and other peculiarities—as fully impressed upon it as if the seed from which it sprang had been as sound and perfect as is possible.*

But what then? Are we to be indifferent in the selection of seeds, and make use of any that may fall in our way, whether perfect or imperfect, indiscriminately? By no means. Let us raise no starvelings. Let us take care to feed the trees we are rearing up as we would our children—beginning with the *seed*, and continuing through all the stages of subsequent growth. Not with delicacies; not with stimulants; but with plain, wholesome and nutricious diet. Let us give them a suitable *soil*, and *climate*, and *management;* for, should disease overtake them; should their native vigor become impaired, we may rest assured that its inception will be found in some of these.

T. S. H.

Coshocton, Ohio, April, 1847.

PEACH BUDS WINTER KILLED.

BY GEORGE BARTLETT, SMITHFIELD, R. I.

When the mercury falls to 14° below zero, the peach buds are generally killed.

This temperature is much more common in low situations, than in elevated ones in the same vicinity.

Consequently, in northern latitudes, in localities subject to this degree of cold, peaches will more generally bear fruit on hills than in valleys.

The principal evidence on which the first of these statements is made, is the testimony of Mr. Osborne of this town. He is an amateur cultivator of fruit, a gentleman of great intelligence, and imbued with a Baconian reverence for facts; a quality very rare in the world, and especally among agricultural writers. In the year 1820, Mr. Osborne was engaged in setting some young peach trees in his garden, when he was told by a very observing old farmer, that the peach buds were killed by the extreme cold of winter. Mr. Osborne manifested some incredulity in regard to the matter, when he was urged by the quiet old observer to try it. "After a very cold snap," said he, "cut open the blossom buds, and you will find a black speck in the middle, and in the spring you will see that the buds will not blossom." Since that time Mr. Osborne has made the observations every year, and has found this to be invariably the case. There have been several summers during this period, in which the peach trees in his garden have borne no fruit, and in the winter preceding each one of these summers, the mercury was depressed to 12 or 14 degrees below zero. And his trees have borne every year in which this degree of

* We think our correspondent has overlooked some important facts in stating this proposition. We will mention one only—the seeds of a *peach tree*, badly diseased with the *yellows*, will, nine times out of ten, produce young trees in which also the yellows appears, even if the seeds are taken away and planted distant from all diseased trees. Sometimes the disease shows itself at once, sometimes not till a year or two has elapsed. But so well is the fact known, that nurserymen, living in districts where the yellows is prevalent, send to some district where this disease is not known for the stones to produce their peach stocks.—Ed.

cold has not been experienced. In the winter of 1841, the writer of this, then in Illinois, observed the peach buds repeatedly, and found them green throughout. One still morning, the thermometer stood 18° below the zero of Fahrenheit. In a few days I examined them again, and found the fatal "blackness in their bosoms."

Since writing thus far, I have observed in the April number of the Horticulturist the article of J. J. Thomas, of Macedon, on the same subject. But I thought it best to give you the additional facts which I have; as a general knowledge of observations already made, will be the best guide to direct us in our future investigations.

Marietta, Ohio, lies low on the Ohio river, latitude 39° 25′. In February, 1835, the thermometer indicated —18°. "The coldest since 1818, when it was the same. The effect on the peach trees was similar, but not so general. In 1818 it killed the whole of whatever age, while in 1835, the old trees only were killed."

The degree of cold necessary to kill the *trees* remains to be ascertained.

The winter of 1836–7, was almost unparalleled in intensity of cold. At Dartmouth, N. H. the mercury fell to —32°, at Dover to —18°, at Albany, N. Y. to —16°, at Cambridge to —32°, at Cherry-Valley to —30°, at Dutchess to —20°, at Hamilton to —28°, and observations were published at thirteen other places in N. Y., where it was more than 14° below zero. In the spring of 1837, a writer at Cambridge remarks, in regard to the cold winter: "In the northeastern States many peach trees were killed, but few produced any blossoms, and such as did blossom were so chilled by the frost that they flowered later than the cherry trees."

The published tables of meteorological observations show that the latitude of general successful peach culture, usually escapes the temperoture of —14°. In Lambertville, N. J., latitude 40° 23′, the coldest weather in 1839, was +1°; in 1840 —6°, in 1841 +0¾°, in 1842 +10°, in 1843 +4½°, in 1844 +0¼°, in 1845 +3°, in 1846 +1°. In Steubenville, Ohio, latitude 40° 25′, the coldest weather, from 1833 to 1845, was —12°, and this temperature was experienced but once.

While in latitudes in which the peach generally fails, the mercury is frequently depressed to —14°. In Dover, N. H., latitude 43° 13′, the greatest cold in 1835 was —28°, in 1836 —17°, in 1837 —18°, in 1838 —12°, in 1839 —14°, in 1840 —14°, in 1841 —16°, in 1842 —8°. In Blomington, Iowa, in 1840 —25°, in 1841 —23°, in 1842 —21°, in 1843 —19°, in 1844 —6°, in 1845 —12°.

The belt of country lying between latitudes 40° and 43° *occasionally* experiences this degree of cold, and the experience of your readers living in these latitudes, will probably testify that there is a corresponding uncertainty in the fruitfulness of the peach.

Mr. Thomas' article, together with the observations of the editor of the Horticulturist, makes it less necessary to enlarge in proof of the statement that this temperature more frequently occurs in valleys than on hills. In this immediate vicinity observations have been made with thermometers at three different elevations for several years. *And on all extremely cold nights, when there is no wind, the lowest thermometer shows the lowest temperature, the highest one the highest temperature, and at the intermediate one in elevation, the temperature is between the other two.* At one time during the past winter the thermometer in the valley marked

—18°, while the next one in height, about a mile distant, showed a temperature of —6°.

Several years since, two brothers in Cumberland in this State, one living near the bottom of a high hill, and the other near the top of the same hill, bought each of them a thermometer; and their observations caused the one in the valley to apply the epithet of *lazy* to his brother's thermometer. He said it could not get up so high, nor down so low, as his own could.

The writer of this has three peach orchards, at three different elevations; and this winter, after the mercury at the house fell to —6°, I examined the buds, cutting some fifty in each orchard. The lowest orchard is thirty or forty feet lower than the house, and in this nine-tenths of the buds were killed. In the one at the same elevation as the thermometer, and in one thirty or forty feet higher, just one-fourth of the buds were dead. A portion of the buds will generally be found to be dead, when examined in any winter.

The mode of examining is to cut the bud transversely directly through the middle, when if it is dead, the black speck will be seen. From observations with the naked eye, I think the ovary merely is killed, though occasionally the whole flower is evidently dead; including the stamens and pistils.

No doubt other circumstances besides elevation, have an important influence on temperature. Among these are proximity to the sea, and the shelter of large cities. The American Almanac, has records of observations, made January 4th and 5th, 1835, at eleven places in the interior of New-York, ranging from —28° to —40°, while in New-York city the mercury stood at —6°. Observations at six places in the interior of Pennsylvania, ranging from —13° to —32°, in Philadelphia —6°, in Pittsburg —4°. GEORGE BARTLETT.

Smithfield, R. I., April 15, 1847.

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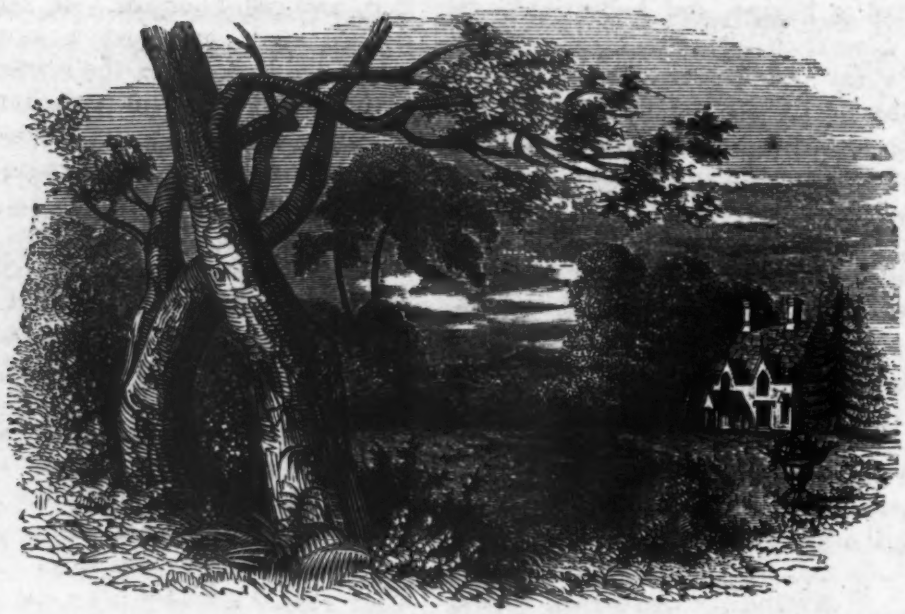
[Highly interesting remarks to planters of fruit trees, to which any observing person may add an abundance of additional testimony. While we write, the peach trees in all the neighborhood around us are profusely in blossom, and promise the finest crops—with the exception of a narrow valley lying along a stream of water, a couple of miles distant. The level of this valley is not more than fifty or eighty feet below that of the country about it, yet the buds of the peach trees within it are nearly all destroyed.—ED.]

HOW TO MAKE A PARADISE IN THE COUNTRY.

[WE have been requested by a friend, to reprint in the Horticulturist, the following essay, from the inimitable pen of the author of "*Letters from under a Bridge.*" There are many citizens who retire into the country, and fancy that the numberless cares of a large "country place" are only a kind of Arcadian child's play. There are many too, who do not know that all they really want in country life, are not its business and cares, but its beauty and its retirement; not a great landed estate, and great personal slavery, but a simple residence, tasteful, admirably situated, and which will, in a good degree, take care of itself. Nothing, we venture to say, has ever been written, that so exactly strikes the actual level of wants and wishes of this class of our readers, as



the spirited suggestions which follow.—Ed. Horticulturist.]

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Landscape-gardening is a pleasant subject to expand into an imaginative article, and I am not surprised that men, sitting amid hot editorials in a city (the month of July,) find a certain facility in creating woods and walks, planting hedges and building conservatories. So may the brain be refreshed, I well know, even with the smell of printing ink in the nostrils. But landscape gardening, as within the reach of the small farmer people, is quite another thing, and to be managed (as brain-gardening need not be, to be sure) with economy and moderation. Tell us in the quarterlies, if you will, what a man may do with a thousand acres and plenty of money; but *we* will endeavor to show what may be done with fifty acres and a spare hour in the evening—by the tasteful farmer, or the tradesman retired on small means. These own their fifty acres (more or less,) up to the sky and down to the bottom of their "diggings," and as nature lets the tree grow and the flower expand for man, without reference to his account at the bank, they have it in their power to embellish, and most commonly, they have also the inclination. Beginners, however, at this, as at most other things, are at the mercy of injudicious counsel, and few books can be more expensively misapplied, than the treatises on landscape-gardening.

The most intense and sincere lovers of the country, are citizens who have fled to rural life in middle age, and old travellers who are weary, heart and foot, and long for shelter and rest. Both these classes of men are ornamental in their tastes—the first because the country is his passion, heightened by abstinence; and the latter, because he remembers the secluded and sweet spots he has crossed in travel, and yearns for something that resembles them, of his own. To begin at the beginning, I will suppose such a man as either of these, in search of land to purchase and build upon. His means are moderate.

Leaving the climate and productiveness of soil out of the question, the main things to find united, are, *shade*, *water*, and *inequality of surface*. With these three features given by nature, any spot may be made beautiful, and at very little cost; and, fortunately for purchasers in this country, most land is valued and sold with little or no reference to these or other capabilities for embellishment. Water, in a country so laced with rivers, is easily found. Yet there are hints worth giving, perhaps, obvious as they seem, even in the selection of water. A small and rapid river is preferable to a large

river or lake. The Hudson, for instance, is too broad to bridge, and beautiful as the sites are upon its banks, the residents have but one egress and one drive—the country behind them. If they could cross to the other side, and radiate in every direction in their evening drives, the villas on that noble river would be trebled in value. One soon tires of riding up and down one bank of a river, and without taste for boating, the beautiful expanse of water soon becomes an irksome barrier. Very much the same remark is true of the borders of lakes, with the additional objection, that there is no variety to the view. A small bright stream, such as hundreds of nameless ones in these beautiful northern states, spanned by bridges, at every half mile, followed always by the roads, which naturally seek the level, and winding into picturesque surprises, appearing and disappearing, continually, is in itself, an ever-renewing poem, crowded with changeable pictures, and every day tempting you to follow or trace back its bright current. Small rivers, again, insure to a degree the other two requisites—shade and inequality of surface—the interval being proportionably narrow, and backed by slopes and alluvial soil, usually producing the various nut and maple trees, which, for their fruit and sap, have been spared by the inexorable axes of the first settlers. If there is any land in the country, the price of which is raised from the supposed desirableness of the site, it is upon the lakes and larger rivers, leaving the smaller rivers, fortunately still within the scale of the people's means.

One more word as to the selection of a spot. The rivers in the United States, more than those of older countries, are variable in their quantity of water. The banks of many of the most picturesque, present, at the season of the year when we most wish it otherwise (in the sultry heats of August and September), bared rocks or beds of ooze, while the stream runs sluggishly and uninvitingly between. Those which are fed principally by springs, however, are less liable to the effects of drouth than those which are the outlets of large bodies of water; and indeed, there is great difference in rivers in this respect, depending on the degree in which their courses are shaded, and other causes. It will be safest, consequently, to select a site in August, when the water is at the lowest, preferring, of course, a bold and high bank as a protection against freshets and flood-wood. The remotest chance of a war with water, damming against wash and floods, fills an old settler with economical alarm.

It was doubtless a "small chore" for the deluge to heave up a mound or slope a bank, but with one spade at a dollar a day, the moving of earth is a discouraging job, and in selecting a place to live, it is well to be apprized what diggings may become necessary, and how your hay and water, wood, visiters, and lumber generally, are to come and go. A man's first fancy is commonly to build on a hill; but as he lives on, year after year, he would like his house lower and lower, till, if the fairies had done it for him at each succeeding wish, he would trouble them at last to dig his cellar at the bottom. It is hard mounting a hill daily, with tired horses, and it is dangerous driving down with full bellied ones from the stable-door, and your friends deduct from the pleasure of seeing you, the inconvenience of ascending and descending. The view, for which you build high, you soon discover is not daily bread, but an occasional treat, more worth, as well as better liked, for the walk to get it, and (you have selected your site, of course, with a southern exposure) a good stiff hill at your back, nine months in the year, saves several degrees of the thermometer, and sundry chimney-tops, barn roofs, and other furniture, peripatetic in a tempest. Then your hill-road washes with the rains, and needs continual mending, and the dweller on the hill needs one more horse and two more oxen, than the dweller in the valley. One thing more. There rises a night-mist (never unwholesome from running water), which protects fruit trees from frost to a certain level above the river, at certain critical seasons, and so ends the reasons for building low.

I am supposing all along, dear reader, that you have had no experience of country life, but that sick of a number in a brick block, or (if a traveller) weary of the "perpetual flow of people," you want a patch of

the globe's surface to yourself, and room enough to scream, let off champagne-corks, or throw stones, without disturbance to your neighbor. The intense yearning for this degree of liberty has led some seekers after the pastoral rather farther into the wilderness than was necessary; and while writing on the subject of a selection of rural sites, it is worth while, perhaps, to specify the desirable degree of neighborhood.

In your own person, probably, you do not combine blacksmith, carpenter, tinman, grocer, apothecary, wet-nurse, dry-nurse, washerwoman, and doctor. Shoes and clothes can wait your convenience for mending; but the little necessities supplied by the above list of vocations are rather imperative, and they can only be ministered to in any degree of comfortable perfection, by a village of at least a thousand inhabitants. Two or three miles is far enough to send your horse to be shod, and far enough to send for doctor or washerwoman, and half the distance would be better, if there was no prospect of the extension of the village limits. But the common diameter of idle boys' rambles is a mile out of the village, and to be just beyond that is very necessary, if you care for plums and apples. The church bell should be within hearing, and it is mellowed deliciously by a mile or two of hill and dale, and your wife will probably belong to a "sewing-circle," to which it is very much for her health to walk, especially if the horse is wanted for plowing. This suggests to me another point which I had nearly overlooked.

The farmer pretends to no "gentility;" I may be permitted to say, therefore, that neighbors are a luxury, both expensive and inconvenient. The necessity you feel for society, of course, will modify very much the just-stated considerations on the subject of vicinage. He who has lived only in towns, or passed his life (as travellers do) only as a receiver of hospitatity, is little aware of the difference between a country and city call, or between receiving a visit and paying one. In town, "not at home," in any of its shapes, is a great preserver of personal liberty, and gives no offence. In the country, you are "at home," *will-you, nill-you.* As a stranger paying a visit, you choose the time most convenient to yourself, and abridge the call at pleasure. In your own house, the visiter may find you at a very inconvenient hour, stay a very inconvenient time, and as you have no liberty to deny yourself at your country door, it may (or may not, I say, according to your taste) be a considerable evil. This point should be well settled, however, before you determine your distance from a closely-settled neighborhood, for many a man would rather send his horse two miles farther to be shod than live within the convenience of "sociable neighbors." A resident in a city, by-the-way (and it is a point which should be kept in mind by the retiring metropolitan) has, properly speaking, no neighbors. He has friends, chosen or made by similarity of pursuit, congeniality of taste, or accident, which might have been left unimproved. His literal neighbors he knows by name—if they keep a brass plate, but they are contented to know as little of him, and the acquaintance ends, without offence, in the perusal of the name and number on the door. In the city you pick your friends. In the country you "take them in the lump."

True, country neighbors are almost always desirable acquaintances—simple in their habits, and pure in their morals and conversation. But this letter is addressed to men retiring from the world, who look forward to the undisturbed enjoyment of trees and fields, who expect life to be filled up with the enjoyment of dew at morn, shade at noon, and the glory of sunset and starlight, and who consider the complete repose of the articulating organs, and release from oppressive and unmeaning social observances, as the fruition of Paradise. To men who have experience or philosophy enough to have reduced life to this, I should recommend a distance of five miles from any village or any family with grown-up daughters. In my character of dollar, I may be forgiven for remarking, also, that this degree of seclusion doubles an income (by enabling a man to live on half of it), and so freeing the mind from the care of pelf, removes the very gravest of the obstacles to happiness. I refer to no saving which infringes on comfort. The housekeeper who caters for her own family in an unvisited

seclusion, and the housekeeper who provides for her family with an eye to the possible or probable interruption of acquaintances not friends, live at very different rates; and the latter adds one dish to the bounty of the table, perhaps, but two to its vanity. Still more in the comfort and expensiveness of dress. The natural and most blissful costume of man in summer, all told, is shirt, slippers, and pantaloons. The compulsory articles of coat, suspenders, waistcoat, and cravat (gloves would be ridiculous), are a tribute paid to the chance of visiters, as is also, probably some dollars' difference in the quality of the hat.

I say nothing of the comfort of a bad hat (one you can sit upon, or water your horse from, or bide the storm in, without remorse), nor of the luxury of having half a dozen, which you do when they are cheap, and so saving the mental burthen of retaining the geography of an article so easily mislaid. A man is a slave to anything on his person he is afraid to spoil—a slave (if he is not rich, as we are not, dear reader!) to any costly habiliment whatever. The trees nod no less graciously (it is a pleasure to be able to say,) because one's trousers are of a rational volume over the portion most tried by a sedentary man, nor because one's hat is of an equivocal shape—having served as a non-conductor between a wet log and its proprietor; but ladies do—and especially country ladies; and even if they did not, there is enough of the leaven of youth, even in philosophers, to make them unwilling to appear to positive disadvantage, and unless you are quite at your ease as to even the ridiculous shabbiness of your outer man, there is no liberty—no economical liberty, I mean—in rural life. Do not mislead yourself, dear reader! I am perfectly aware that a Spanish sombrero, a pair of large French trousers plaited over the hips, a well made English shoe, and a handsome checked shirt, form as easy a costume for the country as philosopher could desire. But I write for men who must attain the same comfort in a shirt of a perfectly independent description, trousers, oftenest, that have seen service as tights, and show a fresher dye in the seams, a hat, price twenty-five cents, (by the dozen,) and shoes of a remediless capriciousness of outline.

I acknowledge that such a costume is a liberty with daylight, which should only be taken within one's own fence, and that it is a misfortune to be surprised in it by a stranger, even there. But I wish to impress upon those to whom this letter is addressed, the obligations of country neighborhood as to dress and table, and the expediency of securing the degree of liberty which may be desired, by a barrier of distance. Sociable country neighbors, as I said before, are a luxury, but they are certainly an expensive one. Judging by data within my reach, I should say that a man who could live for fifteen hundred dollars a year, within a mile of a sociable village, could have the same personal comforts at ten miles distance for half the money. He numbers, say fifteen families, in his acquaintance, and of course pays at a rate of fifty dollars a family for their gratification. Now it is a question whether you would not rather have the money in board fence or Berkshire hogs. You may like society, and yet not like it at such a high price. Or (but this would lead me to another subject) you may prefer society in a lump; and with a house full of friends in the months of June and July, live in contemplative and economical solitude the remainder of the year. And this latter plan I take the liberty to recommend, more particularly to students and authors.

Touching "grounds." The first impulses of taste are dangerous to follow, no less from their blindness to unforseen combinations, than from their expensiveness. In placing your house as far from the public road as possible (and a considerable distance from dust and intrusion, seems at first a *sine qua non*) you entail upon yourself a very costly appendage in the shape of a private road, which of course must be nicely gravelled and nicely kept. A walk or drive, within your gate, which is not hard and free from weeds, is as objectionable as an untidy white dress upon a lady, and she would be better clad in russet, your road were better covered with grass. I may as well say that a hundred yards of gravel-walk, properly "scored," weeded, and roll

ed, will cost five dollars a month—a man's labor reckoned at the present usage. Now no person for whom this letter is written, can afford to keep more than one man servant for "chores." A hundred yards of gravel-walk, therefore, employing half his time, you can easily calculate the distribution of the remainder, upon the flower-garden, kitchen garden, wood-shed, stable, and piggery. (The female "help" should *milk* if I died for it!) My own opinion is, that fifty yards from the road is far enough, and twenty a more prudent distance, though, in the latter case, an impervious screen of shrubbery along your outer fence is indispensable.

The matter of gravel-walks embraces several points of rural comfort, and, to do without them, you must have no young ladies in your acquaintance, and especially, no young gentlemen from the cities. It may not have occurred to you in your sidewalk life, that the dew falls in the country with tolerable regularity; and that, from sundown to ten in the forenoon, you are as much insulated in a cottage surrounded with high grass, as on a rock surrounded with forty fathom water,—shod *a la mode*, I mean. People talk of being "pent up in a city," with perhaps twenty miles of flagged sidewalk extending from their door-stone! They are apt to draw a contrast, favorable to the liberty of cities, however, if they come thinly shod to the country, and must either wade in the grass or stumble through the ruts of a dusty road. If you wish to see bodies acted on by an "exhausted receiver," (giving out their "airs" of course,) shut up your young city friends in a country cottage, by the compulsion of wet grass and muddy highways. Better gravel your whole farm, you say. But having reduced you to this point of horror, you are prepared to listen without contempt, while I suggest two humble *succedanea*.

First: On receiving intimation of a probable visit from a city friend, write by return of post for the size of her foot (or *his*.) Provide immediately a pair of India-rubber shoes of the corresponding number, and on the morning after your friend's arrival, be ready with them at the first horrified withdrawal of the damp foot from the grass. Your shoes may cost you a dollar a pair, but if your visiters are not more than ten or twelve in the season, it is a saving of fifty per cent. at least, in graveling and weeding.

Or, Second: Enclose the two or three acres immediately about your house with a ring fence, and pasture within it a small flock of sheep. They are clean and picturesque, (your dog should be taught to keep them from the doors and porticoes,) and by feeding down the grass to a continual greensward, they give the dew a chance to dry off early and enlarge your cottage "liberties" to the extent of their browsings.

I may as well add, by the way, that a walk with the sod simply taken off, is, in this climate, dry enough, except for an hour or two after a heavy rain; and besides the original saving in gravel, it is kept clean with a quarter of the trouble. A weed imbedded in stones is a much more obstinate customer than a score of them sliced from the smooth ground. At any rate, out with them! A neglected walk indicates that worst of country diseases, a mind grown slovenly and slip-slop! Your house may go unpainted, and your dress (with one exception) submit to the course of events—but be scrupulous in the whiteness of your linen, tenacious of the neatness of your gravel-walks; and, while these points hold, you are at a redeemable remove from the lapse, (fatally prone and easy,) into barbarianism and misanthropy.

Before I enter upon the cultivation of grounds, let me lay before the reader my favorite idea of a cottage—not a *cottage ornée*, but a *cottage insoucieuse*, if I may coin a phrase. In the valley of Sweet Waters, on the banks of the Barbyses, there stands a small pleasure palace of the sultan, which looks as if it was dropped into the green lap of nature, like a jewel-case on a birth-day, with neither preparation on the part of the bestower, nor disturbance on the part of the receiver. From the balcony's foot on every side, extends an unbroken sod to the horizon. Gigantic trees shadow the grass here and there, and an enormous marble vase, carved in imitation of a sea-shell, turns the silver Barbyses in a curious cascade over its lip; but else, it is all Nature's lap, with its bauble resting in velvet—no

gardens, no fences, no walls, no shrubberies—a beautiful valley with the sky resting on its rim, and nothing in it save one fairy palace. The simplicity of the thing enchanted me, and, in all my yearnings after rural seclusion, this vision of old travel has, more or less, colored my fancy. You see what I mean, with half an eye. Gardens are beautiful, shrubberies ornamental, summer-houses and alleys, and gravelled paths, all delightful—but they are, each and all, taxes—heavy taxes on mind, time, and "dollar." Perhaps you like them. Perhaps you want the occupation. But *some* men of small means, like a contemplative idleness in the country. Some men's time never hangs heavily under a tree. Some men like to lock their doors (or to be at liberty to do so,) and be gone for a month, without dread of gardens plundered, flowers trod down, shrubs browsed off by cattle. Some men like nothing out of doors but that which can take care of itself—the side of a house or a forest-tree, or an old horse in a pasture. These men, too, like that which is beautiful, and for such I draw this picture of the *cottage insoucieuse*. What more simply elegant than a pretty structure in the lap of a green dell! What more convenient! What so economical! Sheep (we may "return to muttons") are cheaper "help" than men, and if they do not keep your greensward so brightly mown, they crop it faithfully and turn the crop to better account. The only rule of perfect independence in the country, is to make no "improvement" which requires more attention than the making. So—you are at liberty to take your wife to the springs. So—you join a coterie at Niagara at a letter's warning. So—you can spend a winter in Italy without leaving half your income to servants who keep house at home. So—you can sleep without dread of hail-storms on your graperies or green-houses, without blunderbuss for depredators of fruit, without distress at slugs, cut-worms, drouth, or breachy cattle. Nature is prodigal of flowers, grapes are cheaper bought than raised, fruit *idem*, butter *idem* (though you may'nt think so,) and as for amusement—the man who can not find it between driving, fishing, shooting, strolling, and reading, (to say nothing of less selfish pleasures,) has no business in the country. He should go back to town.

NOTES ON INDIGENOUS TREES AND SHRUBS.

BY S. P. BUCKLEY, YATES Co., N. Y.

THERE are many indigenous shrubs and trees in different parts of the United States, which have never been cultivated, or but partially cultivated, in this country. To assist our gardeners and amateur florists, who may perhaps be induced to bring some of them into general cultivation, we propose, in a series of articles, to describe them, and indicate their localities, which we have obtained from personal observation during botanical tours in various sections of the United States. That they have been described in various botanical works is well known to every botanist, yet not described in such a manner as to arrest the attention of the florist as being worthy of cultivation, nor have their precise localities often been indicated. For the present we shall confine our notice to such as are not mentioned, or if mentioned, merely named as varietes, in "Brown's Trees of America;" we mean those species which belong to genera already published by Mr. Browne, and which it would seem should not have been omitted in a work professing to treat of the trees of America.

RHODODENDRON PUNCTATUM.

(ANDREWS, in Botanists' Repository, 36.)

Leaves perennial, ovate-lanceolate, acute at both ends, smooth; under side of leaves, pedicels and calyx, punctate, with resinous

dots; flowers in umbellate corymbs; segments of calyx short, obtuse; corolla funnel-shaped; lobes ovate; flowers purple, or bright pink, sometimes nearly white in shaded situations; throat punctate, with green spots; capsule elongate; shrub much branched, 6 – 10 feet high. Flowers May – June.

This is one of the most showy of our Rhododendrons, equalling if not surpassing the Rhododendron maximum, which is so highly prized by many florists. We first saw it at "Cæsar's Head," on our route from Asheville, in North Carolina, to Table Mountain in Pickens county, in South Carolina. "Cæsar's Head" is at the summit of the Blue Ridge, near the line between the two above mentioned States. From this place there is one of the finest views in the United States. The beautiful little valley of the Saluda lies far beneath, beyond which, at the distance of three or four miles, uprises the wonderful Table Mountain to the height of between 4000 and 5000 feet, with its perpendicular granitic sides. We again found the R. punctatum, with its gay purple and scarlet flowers, on and near the base of Table Mountain, the ascent of which is effected but at one place, and then is not accomplished without the aid of artificial stairs, which are fastened by means of iron bolts drilled into the solid granite. We also saw it in great abundance in Habersham and Rabun counties, in Georgia, on the banks of streams, especially near the falls of Tuccoa and Fullulah, but it disappeared, on re-entering the State of North Carolina, near the head waters of the Tennessee and Savannah rivers. Subsequently we saw it in the greatest abundance at the falls of Linville river, and at the Table Mountain of Burke county, North Carolina. We found it in cultivation in the garden of Mr. Baring, at Flat Rock, Henderson county, N. C. It is cultivated in England, where it was introduced from this country, in the year 1786.

RHODODENDRON CATAWBIENSE. *Laurel.*
Michaux, Fl. p. 258.

Leaves short oval, round obtuse, pale beneath, smooth; flowers in terminal corymbose umbels; segments of the calyx oblong-elongate; corolla campanulate; flowers purple. Shrub 3 – 5 feet high; flowers June – July. Resembles R. maximum, but is different from it in the narrower and longer segments of its calyx and its obtuse and shorter leaves. On the lofty mountains of the northwest portion of North Carolina, it is often found accompanying the Rhododendron maximum, from which it would not be distinguished by an ordinary observer. The top of the Roan Mountain, of Yancey county, one of the highest in the State, (6038 feet) about the middle of June, or a few days previous, assumes a gay and beautiful appearance, from scattered groups of the then flowering Rhododendron catawbiense upon its grassy and prairie-like summit.

Pursh has described three varieties of Rhododendron maximum. The first variety, *roseum*, he distinguishes as having leaves oblong elliptical, convex, obtuse at the base; beneath whitish or ferruginous; segments of the corolla subrotund; style longer than the stamens; flowers rose-white.

Second variety, *album*, has leaves cuneate lanceolate, plane, almost acute at the base, pale beneath; segments of corolla rotund oblong; style scarcely longer than the stamens; flowers small, white. This has been made a distinct species, R. Pursh*ii*, by *G. Don, in Gen. Syst.* 3, p. 843, ex *Decandolle, vol.* 7, *p.* 723.

Third variety, *purpureum*, very tall; leaves large, oblong elliptical, plane and ob-

tuse at the base, both sides green; segments of corolla oblong, obtuse; style little longer than the stamens; flowers purple. This has also been made a distinct species by G. Don, see *Decandolle, vol. 7, p. 722.*

We think the above are mere varieties of *Rhododendron maximum*, and perhaps it would be better to include them under that species, by varying and extending the description. In extensive explorations of the mountains of Virginia and North Carolina, we could never distinguish any specific difference in the varied forms assumed by R. maximum; they all seem to pass by insensible gradations into each other, yet all conforming to one general type. That this species should vary in its appearance is natural, since it is found upon the banks of streams near the base of the mountains to their extreme summit, where it becomes dwarfish.

The var. *purpureum*, Pursh says, "occupies the borders of lakes on high mountains, and grows to an immense size; its stem is often found eighteen inches and more in diameter, and its foliage triple the size of any other species." This has been copied by various succeeding authors, and Mr. Browne, in his *Trees of America*, p. 360, remarks that "it is a native of Virginia and Carolina, on the highest mountains, near lakes, where it forms a large shrub, or low tree, growing to the height of twenty-five feet, flowering in the months of May and June." We are confident there are no lakes, either on or among the mounatins of Carolina; but of the mountains of Virginia, we can not speak with such confidence; yet we never saw a mountain lake there, nor Pursh's large Rhododendron, but he probably found it among the mountains of Pennsylvania or perhaps Virginia. Besides the foregoing perennial leaved species, there is the dwarf *R. lapponicum*, growing on the White Mountains of New-Hampshire, and the high mountains in Essex county, in this State, (N. Y.) There is also another species, the *R. macrophyllum*, or the Large-leaved Rhododendron, which was found on the west coast of America, by Menzies.

RHODODENDRON NUDIFLORUM. *Wild Honeysuckle.* (Torrey.)

Leaves deciduous, obovate-lanceolate and oblong-lanceolate; flowers slightly viscid, corymbose; tube of the corolla longer than the lobes; stamens much exserted; flowers in terminal clusters, appearing before the leaves are fully expanded; corolla pink or rose colour; calyx hairy and short. *Azalea nudiflorum* of many old authors. Woods and banks of streams; common in the northern and western States, as far south as Florida.

It is often cultivated in gardens, and is truly a beautiful shrub, with fragrant flowers which expand in April and May. There are eleven varieties of this species in cultivation in England, which are enumerated by Loudon.

RHODODENDRON VISCOSUM. *White Wild Honeysuckle.* (Torrey.)

Leaves oblong lanceolate and obovate; flowers very viscid; tube of the corolla twice as long as the lobes, and stamens slightly exserted. *Azalea viscosa* of some authors, now generally referred to Rhododendron. A shrub 4–6 feet high, with numerous spreading branches near the top; flowers in terminal clusters, very fragrant; corolla white; calyx hirsute, small; flowers June–July. This very fragrant species occurs frequently in the southern part of New-York, on Long-Island, and in Connecticut and Pennsylvania, in moist places and woodlands. An excellent figure of it is given by Torrey in the first volume of the Flora of the State of New-York.

RHODODENDRON CALENDULACEUM.
(TORREY.)

Leaves oblong-lanceolate, pubescent or hirsute on both sides; flowers large, not viscid; segments of calyx oblong; tube of the corolla shorter than the segments. Shrub about six feet high, much branched; flowers vary from a bright flame colour to a deep yellow; and many varieties of it have been indicated, some of which are hybrids, between this and other species, arising from cultivation. It is extensively cultivated in England. It is common among and on the Allegany mountains, from Pennsylvania to Georgia. Its bright flowers give the mountains a beautiful appearance during the months of May and June. It flowers in May in Georgia, and in June in Virginia. Pursh says, "it is, without exception, the handsomest shrub in North America."

RHODODENDRON NITIDA. *Shining Honeysuckle.*
TORR. Fl. 1 p., 425.

Branches smooth, leaves small, oblanceolate, slightly mucronate, coriaceous, both sides smooth, above shining; nerve beneath setaceous, margin revolute, ciliate; corymb leafy; calyx segments short; tube of corolla glandular, pilose, longer than the lobes; filaments much exserted. *Azalea nitida.* (Pursh 1, p. 153.) Shrub 4 to 6 feet high. Flowers fragrant, white, tinged with red. Those newly formed parts of the stem near the leaves and flowers, are glandular hispid. Flowers in July. We collected specimens of this shrub, in woods and boggy places, near Flat Rock in Henderson county, North Carolina. It is cultivated in England, where it was introduced from this country, 1812.

Pursh describes several other species, viz: *Azalea arborescens*, now *R. arborescens* of Torrey and others. This species is said by Pursh to grow on the blue mountains of Pennsylvania. It grows to the height of 15 or 20 feet on rivulets. We believe it has not been introduced into England, nor found in its native place by any subsequent botanist. The following is from Pursh's Flora: "This beautiful species has to my knowledge, not yet been introduced into gardens. I have only seen it in its native place, and in the garden of Mr. JOHN BARTRAM, near Philadelphia, whose father introduced it many years ago. It rises from ten to twenty feet high, and forms with its elegant foliage, and large abundant rose-colored flowers, the finest ornamental shrub I know. The flowers are not so much pubescent as the rest of the species; the scales of the flower-buds are larger, yellowish brown, surrounded with fringed white border."

The following species are also enumerated by authors, as growing within the United States, viz; *R. glauca*, which is probably a variety of viscosa; *R. canescens*, which "grows on the banks of rivers in lower Carolina," and will perhaps prove to be a mere variety. *R. mediflora*, *R. bicolor*, said to grow in sterile, sandy hills, in Virginia and Carolina, and *R. hispidum*, which Torrey says, is scarcely distinct from *R. viscosum.*

The *Rhodora*, which is cultivated in some gardens, and is found growing native in Vermont, near Brattleboro and Guildhall, is now referred to *Rhododendron*, and called *R. rhodora.* We believe the foregoing, include all the Rhododendrons which have been found growing native in the United States, whose splendid flowers render the mountain scenery of the southern Alleganies so delightful during the early part of summer. 'Tis true the travelling botanist and hunter, will there often find their course impeded, or stopped, by the almost impenetrable thickets of Rhododendron (Laurel.)

After crawling beneath them, or climbing over their tops, and having his clothes torn, he may perhaps wish the "Laurels" less numerous. All our Azaleas are now referred to the genus Rhododendron, excepting *Azalea procumbens*.

RHUS COTINOIDES.

Leaves oblong ovate, or ovate lanceolate, entire; part of the flowers abortive; pedicels at length elongated, and clothed with long shaggy hairs; flowers bright green; panicles terminal, scarcely exceeding in length the leaves; segments of calyx acute, and shorter than the petals; petals oblong ovate, obtuse. Tree, twenty-five to forty feet high; bark of the trunk and large branches rough, resembling that of the common locust, (*Robinia pseudacacia*); leaves large, very smooth, often 6–8 inches long, and 3–4 inches wide. Branches when first broken, emit an unpleasant odor, and are probably poisonous to some persons, judging from the burning sensation which they gave our hands; which have never been poisoned by any species of Rhus. Flowers April. *R. Cotinoides*, Nuttal in Herb. Acad. Philad., but not described. *R. Cotinus*, Torr. and Gray's Fl. 1, p. 216. Mr. Nuttall discovered it on the high rocky banks of the Grand river, Arkansas, in fruit only. We found numerous small trees of this species, near the top of the mountain, on the rond side, 3 miles from Ditto's landing, on the Tennessee river, and about 10 miles from Huntsville, in the state of Alabama. Again twelve miles from Huntsville, on the route to Winchester, in Tennessee, we found it in flower, near the base of the mountain, about three miles from the house of Mr. Bailus, with whom we had staid the preceding night, and started next morning on foot to visit the nearest mountain. Here we saw trees of *R. cotinoides* at least a foot or more in diameter, and about fifty feet high, growing near streams, and in the rich alluvial soil at the base of the mountains. It is a very beautiful tree, and we hope that it will, ere long, be introduced into cultivation. We found it in the spring of 1842.

ZANTHOXYLUM CAROLINIANUM. LAMARCK.
Prickly Ash of Southern States.

Leaves pinnate; leaflets ovate-lanceolate or falcate-lanceolate, petiolate, crenately serrate, glabrous: flowers in large terminal umbellate panicles; sepals minute; carpels sessile, generally by threes.

A small tree about twenty feet high, and 2–4 inches in diameter, with few branches, except near the summit. Leaves very large, and with the petioles and branches of the tree, armed with prickles; the leaves and flowers are generally aggregated at the summit of the tree; the leaves and bark are very aromatic and pungent. Elliott, in his Botany of South Carolina and Georgia, remarks that it is apparently confined to the sea coast, and Torrey and Gray, in their North American Flora, state that it grows in sandy soil near the sea coast, in North Carolina, Georgia, and Florida. We found it very abundant in the interior of Alabama, growing in the richest prairie soil, by the side of fences and near swamps.

We think it well worthy of cultivation. It is strange that this is not mentioned by Mr. BROWNE, as it is far more worthy of a place among the "Trees of America," than the northern Prickly Ash, which is there described, but no allusion made to the southern species.

S. B. BUCKLEY.

West Dresden, Yates Co., N. Y.

THE CHINESE WISTARIA.

Our pages were adorned last month with a portrait of the *Yulan*, or Chinese White Magnolia, the pride of the lawn and pleasure grounds in April.*

Another hardy twining or climbing shrub, from the same "flowery land," is the gem of the garden and shrubbery, in the month of May.

It is, indeed, one of the loveliest of all vines of a shrubby character. Its clusters of delicate pale purple (or French gray) blossoms, are so numerous and so large, each raceme being 11 or 12 inches long, that they are highly attractive. Their perfume is delicious. The plant is perfectly hardy in this latitude, and will bear a temperature of 10 or 15° below zero. It grows freely in almost every soil, and, in a deep, rich loam, frequently makes shoots 20 or 30 feet long in a single season. Its foliage is abundant, and its color is a lively, pleasant hue of green. In a few words, we cannot but agree with Loudon, in thinking it "the most magnificent of all hardy deciduous climbers."†

When this plant was first introduced into Great Britain from China, about 30 years ago, it was sold for six guineas a plant, and it was considered too tender to bear the open air. It may now be had in all the large nurseries in this country, at from 30 to 50 cents each, and is found to be perfectly hardy. As it is easily propagated by layers and cuttings, and requires no further than a slight training care, when once planted; we hope to see it, and the *Double Michigan Roses*,—two of the finest of hardy climbers yet known, for the middle and eastern states—become the ornament of every rural cottage and country house in the land. The comparative freedom from insects, the permanency and vigor of these climbers, added to their great beauty, must soon make them universal favorites.

The genus *Wistaria*, was named by *Nuttall*, in honor of Dr. Caspar Wistar, the celebrated Philadelphia *savan*.

There is also an indigenous species sometimes called the Glycine, *Wistaria frutescens*, a native of Virginia and the south and west. Though a pretty climber, its clusters of flowers are not more than a third of the size of the Chinese species, and it is much less ornamental, as well as hardy, in the northern states. Its flowers are produced later, or towards midsummer.

A new variety of the Chinese Wistaria, has lately been brought out to England, by the celebrated collector to the London Horticultural Society, Mr. Fortune. Its blossoms are *white*, and the effect of this and the purple flowered species will both be benefitted, by planting and training them together. We have not learned as yet, of its introduction into this country.

We find the following interesting hints, for making the Chinese Wistaria, a *perpetual bloomer*, in *Paxton's Magazine of Botany*.

"Mr. Knight, of the exotic nursery, Chelsea, has a simple method of causing this plant to flower three times a year, by the

* The portrait of the Wistaria, intended to accompany this article, is necessarily omitted, the engraver having failed to get it ready in season.—Pub.

† The Chinese Wistaria, though it will grow over arbors, pillars, or in almost any shape that it may be desirable to train it, appears to thrive best when growing in a warm situation, such as the south side of a building, wall, &c. There is a plant trained on the south side of the gardener's house, here, which has been planted about 12 years, and which now covers a large space. Every year it has increased in size, and in the number of its blossoms. While we write, (the middle of May,) it is in bloom, and there are 610 clusters of blossoms, fully expanded on it.

following treatment. After the first flowering is over, which will be about the end of May, he strips off all the leaves, and cuts off all the young and superfluous shoots which have been formed, to within a few eyes of the stem, which causes it to throw out fresh leaves, and to flower again in July and August; and after this flowering is over, the same process is repeated of cutting off the leaves, and this causes it to flower again in the months of October and November. It may be said that this plant will naturally flower twice, and sometimes thrice, in the season; but, when it does, (which is but very seldom,) the flowers are so very weak, and there are so few of them, that it is never worth notice; whereas, by the above simple process, an abundant succession of flowers may be insured throughout the whole season. It should be remembered, that these remarks will not apply to *young* plants, but only to those that are well established."

Sometimes we have seen plants sent out from the nurseries, which appear for a long time after, to have a dwarfish, stinted habit, and do not climb freely. This is probably owing to their having been raised from downward or impoverished branches. It is necessary in such instances, to head the plants down to a single bud, as near the ground as possible, and to make the soil rich and deep, where they are planted. This will give them a vigorous start, and they will afterwards maintain a natural state of luxuriance.

THE DISEASE OF THE SYCAMORE OR BUTTONWOOD TREE.

We are among the number of those who admire the Sycamore tree. It is among the loftiest and grandest of forest trees; its extremely rapid growth, and the abundant shade it affords, recommend it to those planters whose destiny compels them to create a wood all anew, on some naked spot where leaves are by no means as thick as "in Vallambrosa's shade;" and its bold development, in situations where it has room to grow, often renders it a very picturesque tree.

Then the plane tree of Europe and Asia, (*Platanus orientalis*,) differs from our native Sycamore, (*P. occidentalis*,) so slightly —chiefly to the eye of the common observer, in its rather smaller leaves and seed vessels, that the American Sycamore may be said to appropriate all the associations that belong to one of the most renowned umbrageous forest trees of the old world—the tree which Ovid called the "genial plane," and under which Horace invited Harpinus to drink Falernian wine with him. Xerxes the great, however, seems to have been more impressed by the beauty of this tree, than any other of the ancients—since Herodotus tells us that, when he invaded Greece, he was so completely captivated with a remarkably fine specimen in Lycia, that he covered it with "jewels, bracelets, gems, and infinite riches, belonging to himself and his suite. For some days he could not leave it; and when at last he was forced to part from it, he caused a figure of it to be stamped on a medal, and continually wore it about him."

Though we think, if the great Persian could take a stroll through the valley of the Mississippi, he would behold a few native trees, perhaps even more worthy to fill the eye of so devout a lover of the beauty of the

vegetable kingdom; and, though we by no means place the Sycamore in the first rank of forest denizens, yet we can not but lament the sad condition in which it now appears, in most parts of the Atlantic States.

A disease, even now but little understood, which made its appearance in the south some eight or ten years ago, has gradually advanced northward, until it has reached, as we noticed last season, a point as far north as Canada, and as far west as Buffalo, and perhaps farther.

Its symptoms are, first, a blight and decay of the smaller twigs and branches; then a gradual scantiness of foliage; afterwards a mortality of the larger limbs, commencing at the extremities; which very frequently results—especially in dry soil, in the death of the whole tree. The ravages of this disease, from the general sprinkling of the Sycamore in our woods, and especially by the side of streams of water, has given a blighted and mutilated aspect to the sylvan features of the landscape in many parts of the country. And about Philadelphia and Boston, where, fifty years ago, this tree was quite a favorite in lawns and court yards, we observe with pain a show of sorry and diseased branches, in the place of the rich canopy of foliage which formerly waved over fine old trunks.

There have been a good many speculations about this disease, and at last the public, we are sorry to see, seem to have made up their minds to abandon the tree to its fate. We regret this, and must beg leave to say a few words more in favor of the time honored Sycamore in the day of its misfortunes.

As there are insects to be found in the young diseased shoots, it was at first believed, by many, that the Sycamore malady was caused by insect ravages. Along with others, we shared in this opinon for some time, until Dr. Harris, of Cambridge, Mass., to whose labors in exposing the character and habits of the insects injurious to vegetation, all American cultivators owe so much, convinced us that the insects found in the Sycamore tree were those whose habits were well known, and that they were incapable of producing the disease in question.

It is the opinion of Dr. Harris, that the Sycamore disease is a malady caused by some unusual atmospheric state, which affects deleteriously the foliage and young shoots; an opinion which, upon farther examination and observation, we are inclined to adopt. The best authorities in Europe at the present moment agree, if they agree at all in the matter, that the *Potato* disease is owing to some state of the atmosphere productive of like disastrous effects to that plant. In both cases, the disease has appeared first in one part of the country, and has slowly extended itself to all other parts. In both, the system of the tree or plant seems enfeebled, and almost entirely destroyed by a blight, which may be traced to an original disturbance in the healthy action of the foliage.

Whatever may be the final conclusion regarding the Sycamore disease, one thing we know by experiment to be certain, viz: it is not without a remedy. And we therefore beg those of our readers, who may have fine old specimens of Sycamores, which are just attacked, or not yet wholly destroyed, to repeat our experiment, in order to save the lives of their trees.

The plan we allude to, is that of heading in, or shortening, very severely, as early as possible in June, the extremities of all the lower limbs; say, if possible, one-fourth of the extent of the branches, if small, or one-eighth, if large trees. This forces the tree

to develop new buds, and a strong set of fresh and thrifty shoots, with large and healthy leaves. This young and vigorous foliage, put forth at this late season, appears to have the power of resisting the *malaria*, so fatal to the ordinary, or normal growth. The tree rapidly makes wood, in a short time presents a rich head of large leaves, and in a few years becomes larger and more beautiful than ever.

Six years ago, when this disease had begun to destroy a large number of Sycamores in one of our more southern cities, we recommended this course, as an experiment, to be made on *four* specimens in a row of fine old trees, standing in one of the principal streets. They were very much headed-back in the branches, and very speedily put out a fine new growth, which was not again attacked, and are now very beautiful and healthy trees. The other trees that were left to themselves, are now entirely dead, or so miserably bare of foliage, as to appear so.

Since that time we have seen the same treatment pursued in other parts of the country, with similar good results. We therefore make it more public, now, in the hope of saving many specimens, in various districts, that otherwise would fall victims to the malady, to the injury of many a pretty bit of landscape.*

REVIEWS.

A Report on the Trees and Shrubs of Massachusetts; *published agreeably to an order of the Legislature.* By Geo. B. Emerson, 1846. 8 vo. p p. 547.

If we have been unintentionally tardy in noticing this admirable volume, published at the close of the last year, we are happy to know that it has not needed any commendation at our hands. A work so intrinsically excellent, and which fulfils the end in view so completely as this does, seldom requires any praise from the press. The public soon find out its quality, and the critic's labor is superfluous.

The *Survey of the State of Massachusetts*, has, like most things, planned and executed in that commonwealth, been, in the main, executed with signal care and ability. Dr. Harris' volume on the *Insects* of that State, decidedly the best popular treatise yet published on either side of the Atlantic, is now the standard work on this subject, for the use of all persons engaged in the culture of the soil. Mr. Emerson's volume on the Forest Trees of Massachusetts, now before us, is a worthy companion to it, and should have its place on the book-shelf of every country gentleman, and every person interested in our native forest trees in the northern states. It will teach the student in nature, and the ornamental planter, new sylvan

* Dr. Harris, while we were with him in the library at Harvard University, placed in our hands, an English volume, published in 1815, called "*Foster's* Researches into the Condition of the Atmosphere," from which we made the following extract. It appears that the Sycamore disease was not altogether unknown previously.

"Not only the animal, but also the vegetable kingdom, appears to be affected by the peculiarities of the atmosphere, which do not consist in its temperature or pressure. For example, in the summer of 1810, almost all the Plane trees with rough bark or rind, *P. occidentalis* [our American Buttonwood, Ed.] became diseased, in the neighborhood of London, and for many miles round; while the smooth-rinded Plane trees, (*P. orientalis*) remained in health." The season, he remarks, was neither unusually hot or dry.

We would add to this, that we have remarked in our own neighborhood, that the trees of the Oriental Sycamore have as yet, entirely escaped the disease which has prevailed among our native species.

beauties. It will give the farmers new ideas of the value of timber lands, and judicious hints for the maintenance and improvement of his woodland. It will give the artisan many useful hints, touching the relative value and uses of various kinds of timber; and it will show many an individual, who has never looked at the subject in a comprehensive light, the great value and importance, as well as the beauty of the woodland features of our country;—so that instead of sympathising with the destructiveness of the backwoodsman, he will feel as if he had suddenly been created a royal "commissioner of the woods and forests."

What we consider most entitled to praise in this volume, is its clearness and its perspicuity, joined to the sagacity and observation it displays. There is nothing superficial, and there is no parade of science. It is a work that every intelligent farmer, educated at a New England school, may read and understand fully—and which is at the same time as truly (not pedantically) learned, as if it had been prepared for the Academy of Sciences. Its author is a man who has made himself familiar with what has been written by other authors, *and* he has studied nature and her facts, and digested the latter for himself. The result is, we think, a work of rare merit, and the only regret we have, on rising from its perusal, is, that it does not embrace the trees of the Union, or at least the northern states, instead of those only of Massachusetts. But now that this volume has been so well done, now that a part of the field has been so admirably surveyed, we do not despair of seeing the rest equally well covered.

Mr. Emerson's style is a happy one for the class of readers, with whom we anticipate the largest and best influence for good —the agricultural class. It is simple, and forcible, and his reasoning in behalf of the more attractive side of arboriculture, is a happy combination of the utility and poetry of the subject, which will be much more likely to make an impression, than arguments drawn solely from the imagination. Thus, in urging the more frequent employment of *shade* trees—

"In a country so much exposed as ours is, in consequence of the remarkable clearness of the atmosphere, to the burning heat of the sun, the use of trees for shade, is not one of the least important. This use is closely allied to the last. A tree which furnishes a cool shade to the inhabitants of a house, is at the same time, and on that account, its best ornament. At the season when men travel for pleasure, a plain, low, modest house, speaks more to the feelings, and is more beautiful, than the showiest house, unprotected from the sun. The traveller in a hot day, welcomes every tree by the road-side. Even a thin fringe of grey birches, looks pleasant; and he remembers thankfully, the kindness or good taste which has spared or planted a tree with a head broad and thick enough for him to rest under and cool himself.

"Trees should be planted not only by dwelling houses and along roads; they should be in every pasture, and by watering places, and near every barn,—wherever cattle, horses, or sheep are to be provided for. All these animals suffer from our burning sun; and to say nothing of their enjoyment, the cost of shade trees will be many times paid back in its saving of the milk, fat, fleece, and strength, which will be the conquence of their being protected from the heat of the sun."

In reviewing, a short time ago, a new work on the forest trees of this country, we expressed our sincere regret and disappoint-

ment, that its author had not gone into the fields and woods, and studied the many grand and noble specimens, instead of contenting himself chiefly with a perusal and recapitulation of the dimensions of the celebrated specimens of Europe. Mr. EMERSON, we are delighted to find, has no shortcomings of this kind. The pages before us abound with interesting accounts and measurements of the finest sylvan specimens in the Bay State,—so that any devout worshipper, who has, like ourselves, a little of the feeling of the Druids lingering in his nature, can easily learn where to go and search for the most fitting shrines.

Massachusetts is considered by many, a state where the soil is usually thin, and the forest growth by no means luxuriant. This may be just in the main, as a view of her whole superficial area. But the existence of specimens, the accurate measurements of which we find recorded in this volume, some of which we have ourselves examined with great satisfaction, proves that there are portions of her soil, rarely excelled in richness and fertility. The great Elm at Springfield, for example, measures twenty-ty-five feet, nine inches, in circumference, three feet above the ground. A chestnut southeast of Monument mountain, on the road leading to Sheffield, in a pasture, measured, in 1844, at the ground, thirty feet two inches in circumference. A white oak at Bolton, measures twenty feet in circumference. And a buttonwood at Vaucluse, some miles from Newport, measured in 1839, twenty-four feet four inches in circumference. These are ancient monuments, as interesting to us as the foot prints in the old red sandstone to the geologists.

We have not space to go into a detailed examination of this book, and we will not deprive our many readers, who will yet become possessors of it, of any of the pleasure of perusal, by disjointed fragments. Only the following remarks, we shall extract from the *preface*, with which we again commend the work heartily to their frequent study and reference.

"But it [the present Report] is for the common unlearned citizens, who live on farms in the country, and have few books and little leisure. It is, as far as possible, for it can not be wholly, divested of technical language, in order that they may understand it. And it will accomplish the purpose for which it is written, if it awaken them to a deeper sense of the value of the blessings by which they are surrounded, and lead them, or any of them, to resolve to preserve the old forests, and plant new.

"A few generations ago, an almost unbroken forest covered the continent. The smoke from the Indian's wigwam rose only at distant intervals; and to one looking from Wachusett, or Mount Washington, the small patches laid open for the cultivation of maize, interrupted not perceptibly the dark green of the woods. Now, these old woods are every where falling. The axe has made, and is making, wanton and terrible havoc. The cunning foresight of the Yankee, seems to desert him when he takes the axe in hand. The new settler clears in a year more acres than he can cultivate in ten, and destroys at a single burning many a winter's fuel, which would better be kept in reserve for his grandchildren. This profuse waste is checked, but it has not entirely ceased. It is, however, giving way to better views. Ever since this survey was begun, a wiser economy shows itself. May it be universal. A brief consideration of the general uses of forests, on a great scale, may have a tendency to produce this effect."

THE FRUITS OF AMERICA, *containing a selection of all the varieties cultivated in the United States.* By C. M. HOVEY. Boston, Little & Brown. [*Published in 8vo. numbers, once every two months, at $6 per annum, or $1 per number.*]

THERE are few persons, not directly conversant with the subject, who are aware of the importance which *fruit culture* has assumed in the United States, within the last ten years. It is no longer confined to well kept gardens or enclosures of very limited area. Hundreds, and even thousands, of acres of fruit trees for market, have very recently been planted, in the middle and western States. Even of the finer kinds of pears, such is the facility with which they may be grown in some favorable localities, that extensive orchards are now coming forward. A very intelligent grower in the interior of this State has, at the present moment, a thriving young orchard of *fifteen acres* composed of the most select varieties only of this fruit. And so much more easily may the finer autumn and winter pears be grown in some parts of New-York, where the soil is deep, and the climate ameliorated by the influence of her broad lakes and rivers, than in any part of Europe, that we are confident they will, in a few years, form as regular and profitable a commodity of export to Covent Garden market, London, as our Newtown pippins do at the present moment.

The success of such volumes on Pomology as Mr. KENRICK's *Orchardist*, and our *Fruits and Fruit Trees*, has prepared the way for works of a more expensive character. The field which a coloured work of this kind must occupy, is necessarily very different from the former works. Its high price, (added to the long time which it will require, at the rate of twenty-four plates annually, to give even a very moderate selection,) will keep it out of the reach of any but the more wealthy amateur, or the professional grower, to whom such works are in a good degree necessary.

But, while a work of this kind, from its being confined to the hands of a few hundreds, instead of many thousands, can not have the influence, on the country at large, of a cheap and more popular work, it is a very acceptable addition to the library of the American pomologist, since its plan enables its conductor to give much more elaborate portraits and descriptions than can be comprised in a fruit *manual.*

The style and execution of the first number of Mr. HOVEY's work, just issued, are excellent, though the plates are not properly *coloured* (by hand) like the English works, but *chromolithed*, or *printed* in colour, a cheaper mode of producing the effect of coloured engravings.

Each number of the work is to contain four fruits. The descriptions are given at full length, with the synonyms. The fruits in the present number, viz: *Beurré D'Aremberg*, *Glout Morceau*, and *Van Mons' Leon le Clerk* pears, and *Baldwin* apple, have already been so often described, and are so well known to most of our readers, that they will not of course expect to find much that is new.

Mr. Hovey, however, evinces an odd and amusing pertinacity and disregard of all authorities, in his still cherished opinion of the form of the *Glout Morceau* pear. He still persists in making the figure of the latter fruit more like that of Buerré d'Aremberg than itself—(though it has not escaped us that the stalk is a little more slender than the original *authentic* outline in his Magazine.)

The truth is, the *normal* form of this pear, which varies a good deal, is quite different from that of the *D'Aremberg.* It

has a longer and more slender stalk. This is the case, almost invariably, with the fruit here grown on the pear stock, and we have so represented it in our work on Fruits. Col. Wilder, of Boston, has stated (see page 21 of this journal) this to be true in his grounds, *except when grown on quince stocks.* Mr. Thompson, the fruit authority in England, took pains in the *Gardeners' Chronicle*, for 1846, p. 16, to give outlines, side by side, of these two pears, in which the *Glout Morceau* is distinguished by its straight and rather slender stem. Poiteau, in his *Pomologie Francaise*, and Noisette, in his *Jardin Fruitier*, both represent it, (that is the pear which is the true *Glout Morceau*,) in the same manner. So that we say, either Mr. Hovey has been singularly unfortunate in his specimens of this fruit, after his attention has been repeatedly drawn to it, or all the most careful pomologists of the day, are wrong, and he alone is an accurate observer.

Mr. Hovey has not, perhaps, observed the usual courtesy of authors, in adopting the title of an established contemporary work on the same subject. He has however, doubtless, good reasons for so doing, and we trust his sagacity may be verified by the same large sale for his work, which has attended the publication of the original volume bearing the title in question, which has now reached the seventh edition.

FOREIGN NOTICES.

Rhubarb buds unwholesome.—In "the calender of operations," our correspondent some time since recommended that "Rhubarb buds now emerging, should be thinned out for tarts, where too thick." Following that advice, a clergyman and his family of eight, partook of some tart containing the cooked buds. Seven of the number were made very sick at the time; three remained ill three days, and two young gentlemen have been ill with occasional vomiting, ever since. This information, we derive from Dr. Colton, of Lynn.

Another correspondent also gives a suspicious case, arising from the use of Rhubarb.—"A woman at Chelsea, purchased some Rhubarb, and when about to prepare it, the greenness and freshness of the leaves induced her to try them as a substitute for spinach. The leaves were boiled, tasted, approved and dished up in the same way as spinach. Three partook of them; the father, mother and son (a school-boy.) Symptoms of sickness first appeared in the mother, who was obliged to leave the table; the boy was affected soon after leaving his school, from which he returned sick, with swellings about the mouth; the father who had left home on business, was obliged shortly to return, symptoms of sickness having attacked him also."

We are not aware of any similar instances of serious consequences, following the use of Rhubarb; but it is by no means surprising, that a plant which forms so much oxalic acid, should be unsafe, and we recommend the subject to serious chemical inquiry. It is quite conceivable that the leaves should contain some principle in which they are deficient, as indeed is proved by the different manner in which the juice of the leaf-stalks and leaves are effected by the same re-agents; but until there shall have been time for a careful inquiry into the organic products of those two parts, we can only warn the public against employing for food, any part of the Rhubarb except that which experience shows to be harmless."—[*Gard. Chron.*

[An instance occurred lately, in this neighborhood, of slight indisposition in a family, the members of which had partaken of the leaves, boiled and served up as spinach.—Ed.]

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Culture of the Almond in France.—The almond will vegetate in any soil, provided it is not wet and marshy, and if its tap roots, penetrating to a great depth, do not encounter soil impregnated with stagnant water. I have seen almond trees which were quite old, making vigorous shoots and bearing fruit in abundance, in a very compact, clayey, argillaceous soil. In light sandy soils they bear abundantly, but are short-lived. The situations where I have frequently seen these trees most flourishing and fertile, are in courtyards, by the side of streets and roads, in villages, indeed in places constantly trodden upon, and even paved. Indeed, they possess this singular preference in common with several other kinds of fruit trees, (perhaps all,) as I shall remark later.

The most reliable authors advise that the almond should be planted in a warm and sheltered position.* It is possible that in the climate of Paris, and in the north of France, this precaution may be necessary,

* It is not to insure the maturity of the fruits, but to protect the blossoms from the north and northwest winds, which in a few days destroy the embryo fruit, especially when the blossoming is premature.—[*Poiteau.*

in order that the fruit should reach maturity. But in central France, during half a century, there has not been a single year, except that of 1816, when the almonds have not ripened. Moreover, as the almond often flowers in the month of February, and as severe frosts are often experienced at the time of its fertilization, would it not be rational to retard its blossoming by every possible means, and would not the most simple as well as most effectual be, to place it in a cool aspect. In this case reason is borne out by experience. Who has not seen, as I have, that almond trees, planted behind walls, barns and houses, exposed to the north, bear fruit in abundance, while their neighbors, in an opposite exposure, remained unfruitful.

Bose advises, in order to retard the vegetation of the almond, to graft it upon the plum. I know not if this operation would have the desired result; I have never had an opportunity of testing the fact, but I incline to a contrary opinion in consequence of experience analagous to it. I have raised peach trees grafted upon almonds, and others upon plums, growing side by side, and I have never remarked any perceptible difference in the time of their vegetation and blossoming.

The almond is usually most successfully propagated by budding, either near the ground, or high up on the stem. When strong plants are taken from the nursery to transplant, it is necessary to treat the roots carefully, as they have but few fibres. This tree, once grown, needs little care; it is only necessary to free it from dead wood, and useless or badly shaped branches. While it is young it is well to shorten back, a little, the annual shoots. Otherwise, excessive pruning is injurious. Its greatest enemy is gum, of which it is difficult to prevent the ravages. A longitudinal incision of the bark on those branches attacked, sometimes heals them. It is the method I have found most successful with all stone-fruited trees.

The almond preserves the memory of its native climate, during an exile of 2,000 years. The severity of our winters is often fatal to it. 18° centigrades (about zero of Fahrenheit) of cold that we experienced in December, 1845, injured greatly the young trees of one, two, and even three years old. It is to be feared that in many localities the young shoots of this year are much retarded. It may be remarked also, that these trees were still growing, and had not lost their leaves, when this unseasonable cold fell upon them, without any preparation. Happily these extremes of temperature are very rare in our climate.

This is one of the most fertile trees, and would yield a profitable crop, if its fructification was not so uncertain; but in Auvergne, only one harvest in three years can be depended upon. At the time of its flowering, it is one of the most beautiful ornamental trees. *Bravy, in Revue Horticole.*

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Colours of Flowers.—The bright colours of flowers are given by a matter of a very different character, always fluid, and contained in cells situated immediately beneath the epidermal layer. Many of the different shades of colour are given by the superposition of cells containing different coloured matters; thus yellow, seen through red, appears orange; green showing through red renders it apparently brownish. The very deep tints are produced by the close aggregation of many cells lying one over another. The layer of epidermis, or cuticle, (outer coat) of petals is colourless, and by assuming a papillose structure, it gives them the peculiar velvet-like character they sometimes possess; or when less developed and filled with colourless fluid, render the surface glaucous, or crystalline in appearance. The predominating colours are red, yellow, and blue, with the various intermediate tints; sometimes these colours are converted one into another in the petal after fertilization, (at which period the colours are brightest.) In many *Boraginaceæ*, (Bugloss tribe) the blue flowers become red; in *Myosotis versicolor*, the yellow flowers become blue: and in some *Onagraceæ*, (evening primroses,) white flowers turn red. Many flowers have their colours bedimmed or removed as they wither, especially the blue, which become most frequently white; white flowers usually turn brown; red coloured are more persistent; and yellow is generally unaltered, except in a few instances, when they are blackened. *Henfrey's Outlines of Structural Botany.*

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Chinese taste in Plants.—When I was travelling on the hills of Hong-kong, a few days after my first arrival in China, I met with a most curious dwarf *Lycopodium*, which I dug up and carried to Messrs. Dents' garden where my other plants were at the time. "Hai-yah," said the old compadore, when he saw it, and was quite in raptures of delight. All the other coolies and servants gathered round the basket to admire this little plant. I had not seen them evince so much gratification since I showed them "the old man Catus" (*Cereus senilis*) which I took out from England, and presented to a Chinese nurseryman at Canton. On asking them why they prized the *Lycopodium* so much, they replied, in Canton English, "Oh, he too muchia handsome; he grow only a leete, a leete every year; and suppose he be 100 years ould, he only so high," holding up their hands an inch or two higher than the plant. *Fortune's Three years Wanderings in China.*

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Flowering of a Night-blooming Cereus during the day.—M. Forkel, director of the royal hot-houses at Laeken, has discovered a method of causing this beautiful *Cactus*, which usually opens at night, to expand in the day time. The means employed were the following: seeing that the flowers were ready to open, he placed the plant in an ice-house, in the evening. The cold prevented the flowers from expanding during the night. The next day, the plant being carried into a parlour, the blossoms opened with their usual splendour, without the plant having received the least injury from its abode in the ice-house. *Bravy, in Revue Horticole.*

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Dutch Husbandry.—The foundation upon which the agriculture of Belgium rests, is the cultivation of clover, which seems indigenous, since none of the most ancient records notice its introduction, but speak of it as familiarly as of hay or oats. It is probably from this country, that the

plant in question has been, though but recently, slowly, and hitherto only partially, introduced amongst the farmers of Germany, France, and Great Britain. The clover in Flanders is sown in every sort of grain, in wheat, rye and winter barley, in the spring of the year, when the blades of those plants have acquired a growth of three or four inches; and with oats and summer barley at the same time with those seeds. It is also often sown with flax; and in general, the crops grown between those plants are more luxuriant than when sown with the cerealia. It frequently happens, when sown with flax, that clover yields a heavy crop a few months after it is sown; two still more abundant crops the next year, and sometimes even three; and if, as it occasionally happens, it be suffered to stand another year, it will yield one heavy crop, and afterwards good pasture for cattle, till it is plowed up to receive the seed of wheat, which usually follows it. The original strength of the plants which yield such abundant nourishment is undoubtedly due to the care taken in pulverizing the soil by frequent plowings and harrowings, to the careful extirpation of all weeds, and to the copious stores of manure laid on the ground, and its complete amalgamation with the soil; but the successive harvests which the plants yield are attributed, and with apparent probability, to the top-dressings which are bestowed upon them. The top-dressings administered to the young clover consist either of rotten yard-dung, lime, pigeons' dung, coal, or native turf-ashes, and are laid on as soon as the plants begin to extend themselves over the ground. Sometimes the plants are refreshed with a liquid manure, which will hereafter be noticed.

These manures, though administered to the clovers, as far as they can be obtained, are found far inferior in powers of fertility to that substance which is most generally used, and the effects of which, form the theme of the praises bestowed by all who have witnessed the Belgian husbandry. The turf ashes of Holland, are sown by the hand on the clovers, in quantities varying from eighteen to twenty bushels to the English acre.

This small quantity produces a most surprising and almost magical effect. Within a few weeks after it is sown, a field where none or but slight straggling plants were to be seen, becomes covered with a most abundant herbage. The parts of a field sown with these ashes, at the first mowing, show their efficacy in a most striking manner; the clover being frequently a foot higher on such parts, than on those where its sowing has been omitted. These ashes are found superior in efficacy to such as are made from the turf commonly used for fuel in Flanders, insomuch that one-third of the quantity is deemed sufficient to afford a great productiveness. We have no analysis of the turf-ashes of Flanders, by which we can form a comparative estimate of the proportional substances which create so vast a difference between their vegetative faculties and those of the turf-ashes of Holland. The latter have been carefully analyzed by Mr. Brande, secretary to the Royal Society of London, who found them to contain

Siliceous earth,	32	parts.
Sulphate of lime,	12	"
Sulphate of muriate of soda,	6	"
Carbonate of lime,	40	"
Oxide of iron,	3	"
	93	
Impurities and loss,	7	100

These ashes are brought from Holland by the canals to Brussels, whence they are conveyed by land carriage to the different farms where they are applied. Long practice has so convinced the Flemish farmers of their benefit, that a common proverb in the patois of the country, may be thus translated: "He that buys ashes for his clover pays nothing, but he who does it not, pays double." They are frequently fetched from the canal by persons who have to carry them forty, or even fifty miles by land.

The abundance of the clover produced from the soil of Flanders, enables the cultivator to maintain a great number of cattle, principally cows, the dung of which is managed with an attention and care that is highly worthy of imitation, and contributes to maintain in a state of high fertility that soil which yields the most exhausting crops. "The farmers," says the Abbe Mann, "supply the want of straw in the following manner: The peat or sods which are cut from the heath, are placed in the stables and cowstalls as litter for the cattle. The ground under them is dug to a certain depth, so as to admit a considerable quantity of these peat sods, and fresh ones are added as the feet of the cattle tread them down into less compass. These compose so many beds of manure, thoroughly impregnated with the urine and dung of the cattle. This mixture produces a compost of excellent quality for fertilizing ground where corn is to be sown." *Ency. Brit., seventh edition.*

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CHAPMAN'S PRINCE OF WALES PLUM.—This Plum was raised at Brentford End, in 1830, and is a seedling from the Orleans, but is quite distinct from that variety. It is larger, of a different shape, being inclined to be oval, different in color, which is a bright purplish pink, with much more bloom, and the flavor is much superior. The flesh is yellowish or pale amber, and parts from the stone. Unlike the Orleans, it never cracks, and the shoots differ from those of that variety, in being smooth, whereas in the Orleans they are downy. The leaves are broad, roundish, and easily distinguishable from those of any other Plum. The trees are of vigorous growth. Upon stocks planted in the spring of 1844, and budded in August following, are this year shoots upwards of eight feet in height. The bloom is protected by the foliage in a most remarkable manner, and it has a peculiar habit of spurring all up the branches. Trees of this variety, three years old, have been covered with plums as thickly as they could be placed, at three feet up the stem, so that it has been necessary to fasten the branches up with stakes to prevent them breaking down. It bears well on suckers from the mother plant. *London Hort. Mag.*

DOMESTIC NOTICES.

VARIATIONS IN STRAWBERRY BLOSSOMS.—In the second number of the Horticulturist, there were some editorial remarks on the liability to variation of the organs of fructification of the strawberry, which forcibly arrested my attention. From that time to the present I have borne them in mind, with the view of testing their accuracy when the strawberry came fully into flower. That period has arrived, but I see nothing which tends in the slightest degree to support them. The flowers of Hovey's seedling, for instance, have precisely the same characteristics now which they had when it first came into my possession five years ago. I have it under every variety of circumstance—in old beds, exhausted by heavy and repeated crops, and young plantations which have not yet borne; and I can safely say, that I have never yet seen a flower which was not pistillate in its character. It is quite probable it may have become "permanently" pistillate before I received it, if such a thing be possible; but in contending for so strange a metamorphosis as that which the article in question was designed to establish, the facts should be numerous and well authenticated, and uniform. Venders of Hovey's seedling have, even within the past year, advertised plants both with pistillate and perfect flowers; [yes, and rightly, ED.] and it might reasonably be supposed [why so?] that some, amongst the large number I have in cultivation, would show the variation. But all cultivators of the strawberry know how easy it is for spurious varieties to gain admission into beds from which the utmost vigilance has been used to exclude them. [We think it next to impossible where strawberries are carefully grown.] Such being the fact, I cannot but suspect that it was the operation of this cause which led to the extraordinary deductions which distinguish the article referred to. To admit the truth of them without further investigation would, it appears to me, tend in a great measure to unsettle everything regarding the supposed unchangeable characteristics of plants. If they may undergo change in one thing, they are equally liable to it in others, until finally they may lose their specific features. Propagated as the strawberry usually is, every plant may be regarded as nothing more than an extension of the first individual of the family, and, as it were, identical with it. I would respectfully suggest that this matter be carefully reviewed during the present season, and placed on its proper basis.

And as the time is now appropriate, I would also take the liberty of suggesting the propriety of preparing accurate descriptions of the best varieties of the strawberry, in which the characters of the flowers should be particularly stated. Sometimes—not unfrequently—this might furnish the only means by which one could determine whether he was cultivating the genuine or a spurious sort. It is not uncommon to see very distinct plants, received from different sources, bearing the same name. I have, for example, the British Queen, from different establishments of great respectability, one of which is staminate and the other pistillate. Full and authentic descriptions of all the celebrated strawberries would undoubtedly be of great value to the horticultural community.—FRAGRARIA. *Petersburg, Va., April 29th.*

[REMARKS.—Our correspondent judges, like many others, solely from the plants in his own garden, and then asks if it might not reasonably be expected that some among the plants in his bed should show a variation? Our own remarks were based on observations of the strawberry for years in various parts of the country. While we write, strawberries are again in full bloom, and we are obliged to say that our views advanced last year, are confirmed. We have a new bed of Hovey's seedling, now in full bloom, which is full of *perfect flowers*, and which, aside from accidents, we will warrant to produce a large crop of the finest fruit. We have also an old bed of the same variety in which pistillate plants are to be found.

Our correspondent talks of the "unchangable characteristics of plants," &c. We presume, since he is so skeptical as to our humble views, he will not object to listen to an extract from an article bearing on this subject, from the pen of Professor LINDLEY, acknowledged to be the highest authority at the present moment in England. The article is in the *Chronicle* of April 10th, and is in reply to a correspondent who complains that his strawberries are all *blind*—the old complaint of imperfect blossoms. Dr. LINDLEY says, in order to understand this matter, and how a variation may be produced, it is necessary "to examine the young flower buds as they exist in the plant, as it makes its first move towards growth. At that time, they are collections of tiny scales, placed over a small, spongy centre. By degrees they take on the forms of calyx, corolla, stamens, and pistil. The calyx and corolla are the most simple, grow the quickest, and most easily bear to be hastened; stamens require most time for growth. the pistil most of all. When high temperature, night and day, with abundance of moisture, and as much light as February yields, are suddenly applied to the strawberry, it is compelled to grow; the pre-determined parts advance, and, obedient to influences which their nature cannot disregard, they by degrees unfold; but how? The oldest parts, namely, the calyx and corolla, simple in structure, and already advanced in their formation, suffer no injury, but appear in their usual state, arraying the blossoms in gay apparel of white and green. The next, however, the stamens, having less time to form, acquire, perhaps, their yellow colour, but are powerless for their allotted office, while the pistil, the most complicated of all the parts, that which demands the longest period for its perfect formation, but which is the latest that the flower produces, and which is to become the fruit, is a mere tuft of abortion, incapable of quickening, and shrivelling into pitch-black threads as soon as it is fully in contact with the air.

"All this was long ago proved by Mr. ANDREW

KNIGHT, although the *rationale* was not explained. That admirable experimentalist found that when melons were forced too fast, they bore nothing but male flowers; and that cucumbers, if grown very slowly, produced nothing but females. That is to say, the excessive growth which he obtained, gave the complicated females no time to organise; but was enough for the preparation of the males, whose structure is more simple. On the other hand, where growth was preternaturally slow, the period of gestation was so long that all the parts of the flower which, under a higher and quicker stimulus, would have become males, fashioned themselves into the complicated condition of females."

In a succeeding number of the same journal, Dr. LINDLEY says, in referring to the foregoing remarks—" we only pointed out *one cause* of this defect in the organ. Others might be named; among which is frost :" to which we will add, exhaustion in an old bed, and peculiarities of soil.

A neighbor of ours had a stock of Hovey's seedling from us, three or four years ago. When they came into fruit with him they bore well, and the flowers were perfect. Last spring he came to us for a fresh supply, as his bed had nearly all become pistillate—while ours remained perfect. His soil is a gravelly loam, ours a strong loamy clay.

We have sent plants of Hovey's seedling, with perfect blossoms upon them, to the Massachusetts Horticultural Society this season for their examination.—ED.]

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THE CURCULIO.—Now is the season when this greatest of foes to the plum tree, makes its appearance, and our readers will no doubt put in practice various means for its destruction. The following new suggestion, which we extract from the *Ohio Cultivator*, is worthy of attention:

" A *new remedy*, and one that to our mind affords promise of more utility than any other within our knowledge, was made known to us recently, by our friend, Gen. J. T. Worthington, who informed us that it had been practiced with much success, by one or more fruit growers at Chillicothe. Take a number (one for each tree) of tubs, or boxes, that will hold an inch or two of water in the bottom; whitewash the inside, and place them under the trees—if elevated on a barrel, or by other means, so as to bring it near the lower branches, all the better; then pour in water so as to cover the bottom an inch or more in depth, and in the dusk of the evening when the Curculios begin to appear, set a lighted candle or lamp in the middle of the tub or box, letting it remain for two or three hours or longer, each evening, during the period the insects are flying, which is found to be but for a very few days.

The light and reflection from the whitewashed sides, attract the insects into the tub, and falling into the water, they are unable to crawl out. *Hundreds* have been caught in this way, in a single tub, in one night, during the time of their thickest flight. The remedy would probably be more effectual, if the trees were to be shook or suddenly jarred, occasionally, during the evening when the insects are most numerous.

We hope that a number of our fruit growing readers will try this method the present season, and let us know the result. The trouble and expense are very trifling compared with the value of a crop of fine plums, and the satisfaction of thinning off these hateful marauders."

A correspondent in New Jersey, formerly much troubled with this insect, took our advice, and threw up the soil under his plum trees, in trenches and ridges, late last autumn. This was done for the purpose of destroying the insects, in their winter quarters, by freezing them. He writes us, lately, that it has apparently been quite successful, as he has seen few, or none of the insects as yet, though they have punctured all the fruit in the garden of a neighbor, about a quarter of a mile distant.

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A NEW NATIVE PEAR.—Dear Sir: "The Onondaga Pear," described by GENERAL LEAVENWORTH, in the Horticulturist, is well worthy of the high character given to the same by him, and is attracting considerable attention in this vicinity.

There is also another Pear, which I esteem among the best, called the " Richard's Pear." It is a local Pear, being confined I believe, entirely to this county. The original tree is growing in the garden formerly owned by JEDEDIAH RICHARDS, in Elbridge, Onondaga co., N. Y. Mr. RICHARDS in 1818, sent several scions in a letter, to GROVE LAWRENCE, Esq., at Camillus, from which several fine bearing trees have been produced. Gen. JAS. R. LAWRENCE, has also several trees of the same variety, on his place in Camillus. In my opinion, it is a richer Pear than the " Onondaga," but it is not quite as large. The Onondaga inclines a little to acid, but perhaps this may be corrected in a measure, by cultivation.

RICHARD'S BEURRE.—Size, large; shape, obovate; colour, yellow, with a red cheek, qualities, sweet, very juicy, melting and buttery; ripens in Sept. I will send you specimens of the fruit next fall, and scions next spring, should you desire. Whether this is a seedling or not, I cannot state, Mr. RICHARDS having removed some years since, to Ohio. I have called this Pear, the pomological world being willing, RICHARDS' BEURRE.—Yours, truly, D. C. LE ROY, Cor. Secretary of Onondaga Hort. Society. *Syracuse, May* 7, 1847.

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THE OSAGE ORANGE.—Messrs. ELY & CAMPBELL, of Cincinnati, have done the country a service by procuring from the banks of the Red River, a large quantity of the seed of this beautiful and hitherto rather scarce tree. They have placed it for sale with the principal seedsmen in our cities, (J. M. Thorburn & Co., New-York; Wm. Thorburn, Albany; Dair & Co., Cincinnati, etc.) and we hope that, at least in all districts south of us, an extensive trial will be made of it for hedges. It will scarcely succeed well much to the northward of us, except in situations where the peach will ripen well and regularly in the open air, and where the thermometer does not sink in winter more than 3° or 4° below zero. For the middle and southern portions of the Union scarcely anything can be superior to the Osage Orange as a hedge plant.

The seeds may even yet be planted with success, after soaking them 12 hours in warm water. Ample

directions for sowing and after culture, have been given by us in a Chapter on Hedges, p. 345 of this journal. .....

Remarks on New Roses.—*The Cloth of Gold Rose. (Chromatella.)*—Novelties in Horticulture are quite as likely to create an excitement among the friends of so interesting a science, as anything else we know of, and it is amusing to witness the ardor, of both sellers and buyers, when any thing *new* is brought out. A few years ago, Mr. Rivers, of Sawbridgeworth, near London, brought over from France a Noisette Rose, to which he gave the name "*Cloth of Gold*," and a description of the most glowing character. It was "*very double, large, and of a deep golden yellow.*" No sooner was it announced as on sale, than every body was anxious to obtain so fine a thing, so anxious indeed that a guinea in England, and five dollars here, was paid for plants a very little better than a recently struck cutting. As fast as each plant grew large enough, it was forthwith mutilated (cut in) for the purposes of propagation, consequently the flower was not to be seen, though every body *wished* to see it. Nurserymen advertised, *puffed*, and sold it, ameteurs purchased on the strength of what was said of it, and nursed their treasure with all the care imaginable, watching day by day for the welcome sight of a flower bud. Nine tenths of those whose expectations were thus elevated, were doomed to disappointment in not beholding a bloom at all, while the few who did, saw not what their imagination pictured. Was the whole thing then a fraud upon the public, a piece of deception benefitting a few at the expense of the many? It was so to some extent. The *name* was captivating, the *colour* particularly attractive in a Rose; it seemed all that could be desired. If then this Rose is *not* true to the description given of it heretofore, what *is* its true character? For two years we have grown the plant in our own garden, and had a few flowers; we have also seen eight or ten blooms in several of our nurseries, all on moderate sized plants, and one *exceedingly fine* flower, cut from a rather large specimen in Messrs. Winter & Co.'s, greenhouse. Taking these samples as a fair criteria to form a judgment upon, the following description will be found correct.

Noisette Rose, Cloth of Gold, or *Chromatella.*

Plant of moderate growth, not inclined to make strong shoots until well established in suitable soil, nor adapted to pot culture. Foliage inferior to many others of its class, in size and colour. The flower *not very* large, nor *very* double, *form* indifferent, the petals too much reflexed, and not well set together. Flowers persistent. Colour, a *good yellow* in the centre, shaded off to a much lighter hue outside. The petals want substance. Blooms sparingly under the usual treatment. A little tender in this climate, well suited to train under the rafters of a greenhouse.

In the open soil, *made rich*, and with a warm exposure it will, after a few seasons, grow with more vigor, trained to the house or a trellis, in which situation it will form an interesting object, but not more so than "*Solfatere*," or "*Lamarque.*" In shape and hue, "*Smithii*" is to our mind, a better rose. The flower from Messrs. Winter & Co.'s, was cut from a good strong plant grown in a box of rich earth, and the shoots trained beneath the lights of their greenhouse.

It must not be inferred from our remarks, that the Cloth of Gold Rose is condemned, or undeserving of the cultivators' care; we mean no such thing; but we do mean to say that it *is* not what it *was* represented when it first came out. As to the colour, "*Harrissonii*," "*Williams' Yellow*," and "*Persian Yellow*," are far its superiors; the last is unquestionably the finest yellow known.

The following *new* Roses will in all probability be introduced to our collections before January next; most of them are decided acquisitions to the list of *really good kinds*, and a few, singularly beautiful

R. Provence.
Amandine, (Vibert.)
Antigone, (")
Ariel, (")
Desdemona.
Duchesse de Rohan, (Rene)
Ferret.
Niobe, (Vibert.)
Ponctue.

R. Damask.
Aline, (Vibert.)
Candide.
Eudoxie.
Ismene, (Vibert.)
La Negresse.
Nerein.
Naomi, (Vibert.)
Veturie.

R. Moss.
A fleurs d'Anemone, (Vibert.)
Aixa, (Laffay.)
Catherine de Wurtemberg.
Countesse de Noe, (Portemer.)
Etna, (Vibert.)
Heloise, (")
Indiana (")
Princesse Royal, (Portemer.)
Virginale.

Striped Provence.
Aramis, (Vibert.)
Esther, (")
Genl. Bertrand, (")
Mecene, (")
Œillet Flamand, (")
Perle des panachees, (")

Tea.
Souvenir d'un Ami, (Belot-Defougere.)

Noisette.
Phaloe (Vibert.)

Bourbon.
Beaute de Versailles, (Souchet.)
Cæsarine Souchet, (")
Charlemagne (Dorisy.)
Docteur Hardouin, (Oger.)
Duchesse de Normandie (Oudin.)
Eugenie Guinoiseau (Guinoiseau.)
Leveson Gower, (Beluze.)
Margat Jeune, (Souchet.)
Montaigne, (Vibert.)
Sydonie Dorisy, (Dorisy.)
Triomphe de la Duchere, (Beluze.)

Hybrid Perpetuals.
Amiral D'Estaing, (Portemer.)
Cœline Perpetuelle.
Commandant [illegible]nier, (Laffay.)
Comte de Mo[illegible]et.
Coquette de Meudon.
Eugene Sue.
General Morangier, (Portemer.)
Gloire d'Angers, (Boyau.)
Gulistan, (Vibert.)
Jacques Lafitte, (Vibert.)
Leonie Verger.
Lalia.
Louise Favre, (Lacharme.)
Mathilde Jourdeuil. (")
Pompon de St. Radegonde.
Princesse de Salerne,(Margottin.)
La Renoncule (")

To the preceding, we take much pleasure in adding and recommending the following fine kinds:

Willisson's
Curled crested moss.
" New " "
" Crimson " "
" Mottled " "
" New White Provence.
" *General Tom Thumb*, (Seldom exceeds two inches in height.)
" Queen Victoria.
" Blotched Leaved Bengal.
" Milk Maid China.
" Meuse de Meaux Minima

Willisson's--*continued.*
" Weeping Rose.
" Amie Vibert Crispum.

Burgess's
Victoria Bridal Wreath.
" Lilac Perfection.
" Mrs. Glenny.
" Metropolitan.
" Prince of Wales.
" Turtle Dove.
" Essex Hero.

Rose Willissonii.

Flushing, May, 1847.

Wm. W. Valk, M. D.

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Cedar of Lebanon.—Since writing the leader in this number, we have seen at the nursery of Mr Wm. Reid, Murray Hill, New-York city, a small

stock in pots of fine Cedar of Lebanon plants raised from the seeds of Mr. Ash's fine tree in Westchester county—the finest in the country. They are about five or six years old, and may easily be removed to any part of the country.

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Wounds in trees.—I have tried a great many compositions and plasters for wounds made in pruning, and I have found nothing equal to the exceedingly nice and complete mixture recommended on page 32 of your work on *Fruits*, as the *Shellac composition*. The great rapidity and ease with which it is applied, are of themselves strong advantages. But it is also inconspicuous, and occupies no space, adheres firmly, and keeps out the air, while the moment that the lip of new bark is ready to close over the wound, it finds no impediment, as it does in the case of many of the old-fashioned plasters. All farmers should have a bottle at hand at this season of the year. Yours, truly.—X. Y. Z. *Baltimore, May.*

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Iron for the Pear tree.—Dr. Thomas Close, of Portchester, N. Y., sends us the following additional evidence of the good effects of iron, in a letter received from him some time since:

"A friend of mine at Olney Park, near Philadelphia, writes me that he has greatly enlarged and improved his Seckel pears by supplying the soil pretty liberally with slag from the iron foundry. My own observation leads me to believe that iron is of great value in protecting the peach tree from the *yellows*."

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Labels.—A word upon the subject of *Labels* for trees and plants. We want something combining the elements of convenience, durability and cheapness. The result of my cogitations upon this matter, is as follows:

1st. *The material.* Cut strips of *Zinc*, of an elongated triangular form, ten inches long, half an inch wide at one end, and running to a point at the other.

2d. *Mode of Fastening.* About four inches from the wide end of one of these strips, punch a hole. Bend the pointed end over a twig of the tree, and put it one-eighth of an inch through this hole, and clinch it with the fingers or a small pair of pincers.

3d. *The Writing.* The place for this is between the wide end of the label and the hole for fastening it. The ink to be used is made of—

Verdigris, (powdered,) - -	2 parts.
Sal Ammoniac, - - -	2 "
Lamp Black, - - - - -	1 "
Water, - - - - - -	20 "

Mix these ingredients in a mortar, using at first only so much of the water as is sufficient for mixing them, and add the remainder of it afterwards. The ink should be put into a well corked bottle, and shaken from time to time. In a few days it will be fit for use. Any druggist or other person can prepare it. When put away, let the bottle stand cork end downward, to prevent the escape of the Ammonia, and the ink may be kept for years ready for use. Write with a quill pen.

It will sometimes be necessary to remove the label from the twig upon which it is fixed to a smaller one. This can easily be done without the aid of any tool other than the fingers.

Labels of the above description will last a man's lifetime. But if you know anything better, please do not fail to give your readers the benefit of it. As Horace says—(if you permit your correspondents to show their Latin)—

——"Si quid novisti rectius istis,
Candidus imperti: si non, his utere mecum."

I ought to add that nothing of the above is original with me, except the *mode of fastening* the labels. Very respectfully, &c., Geo. Jaques. *Worcester, Mass.*, 1847.

MASSACHUSETTS HORTICULTURAL SOCIETY.

April 17th, 1841.—President Wilder, in the Chair.

A package of seed was presented to the Society by *Mrs. Percival*, and it was

Voted, That the thanks of the Society be presented to Mrs. Percival, and that the seed be placed in the hands of the Society's Professor of Botany.

The scions received from A. H. Ernst, Esq., of Cincinnati, were distributed to the members of the Society.

May 1st, 1847.—President Wilder in the Chair.

E. M. Richards, for the committee appointed to fix the days of the annual exhibition of the Society, reported, verbally, that they had decided upon Wednesday, Thursday and Friday, the 22d, 23d and 24th days of September, next, and it was

Voted, That the report be accepted.

The following gentlemen were elected Life Members of the Society, viz:

Jonathan Chapman, Chas. H. Mills, A. W. Thaxter, Thomas Lamb, J. Eliot Thayer, J. W. Blodget, Isaac Babbitt, Thomas P. Cushing and Otis Everett, jr, Boston, Joseph Manning, Medford.

Fifteen gentlemen were elected subscription members.

May 18th, 1847.—President Wilder, in the Chair.

A communication was received from Prof Asa Gray, of Cambridge, accompanied with a copy of his Chloris Boreali-Americana, and also a copy of Mr. Ward's Treatise on the "Growth of Plants, in closely glazed cases," and it was

Voted, That the thanks of this Society be presented to Prof. Asa Gray, for his liberal donation, and that the corresponding Secretary be requested to forward him a complimentary letter.

A letter was received from the Antiquarian Society of Worcester, expressing their thanks for a copy of the "Transactions of the Society."

A copy of the "Transactions of the Worcester County Horticultural Society," was received from Geo. Jaques, Esq., and it was

Voted, That the thanks of the Society be presented to Geo. Jaques, Esq.

Edward C. R. Walker, *Rec. Sec.*

PENNSYLVANIA HORTICULTURAL SOCIETY.

THE stated monthly meeting occurred on Tuesday evening April 20, 1847. The President in the chair.

The display was unusually fine; seldom has the society witnessed a more brilliant exhibition of flowering exotics. Among those presented by the President's gardener, were a fine specimen of Rhododendron marryattæ, the beauty of the flowers, contrasting singularly with its variegated foliage; Metrosideros floribunda, Azalea phœnicea, Oncidium sp. nov. etc. in full flower; also tables of Pelargoniums, seedling Cinerarias, seedling Petunias, (fine) and bouquets. Mr. Mackenzie's collection contained Azaleas of choice and new varieties—Cacti, Rhododendron, Knightii, etc.; but the most interesting was his display of cut Camellias, presenting a regular challenge of seventy-two varieties on one occasion, several of which were new, and shown for the first time. Mr. Buist exhibited, in a choice collection, a large splendid Acacia in profuse bloom, Oncidium racemosum, with a stem of flowers of great length, Heaths, Roses, etc. Mr. Dryburgh's collection contained fine Azaleas, Pelargoniums, select Roses, etc. Mr. Henderson, gardener to Tho. W. Smith, exhibited an extensive collection of exotics, some of the specimens of much beauty; also a fine display of indigenous plants in flower, and bouquets. James Bisset, gardener to James Dundas, presented fine plants of Banksia Rose, in rich clusters; Euphorbia splendens, Pelargonia, Polyanthi, etc. B. Gulliss, gardener to Jacob Snider, Jr. a large collection, among which were fine specimens of Cereus flagelliformis, Pelargonia, Heliotropia, Pansies and many others. Robert Kilvington a table of choice plants; John Sherwood superb Roses, etc.: Patrick Gallagher, gardener to Miss Gratz, a good collection of plants and Pansies. Henry A. Dreer, a superb show of Hyacinths, in pots: And Saml. Maupay, beautiful Pansies. Of fruits there were seen bunches of three varieties of Grapes, and a dish of Percival Strawberries, and plants of the latter bearing fruit, from James Dundas' greenhouse. Of vegetables, there were two extensive tables by Mr. A. Felton, each containing different kinds; another by Isaac B. Baxter, among which were fine asparagus. Mushrooms were presented by P. Gallagher; a brace of Cucumbers, by A. Caie gardener to Mrs. Camac, and fine asparagus from the President.

Premiums were awarded as follows: By the committee on plants and flowers—for the best ten Pelargonia, in pots, to Wm. Hall, gardener to C. Cope; for the 2d best ditto, to Patrick Gallagher, gardener to Miss Gratz; for the 3d ditto, to James Bisset, gardener to James Dundas; for the best twelve everblooming Roses, to John Sherwood; for the 2d best ditto, to Andrew Dryburgh; for the best six Hyacinths, to Henry A. Dreer; for the 2d best ditto, to the same contributor; for the best six Pansies, to Samuel Maupay; for the 2d best ditto, to P. Gallagher; for the best six Polyanthus, to James Bisset; for the best hothouse plants, to Arch'd Henderson, gardener to Tho. W. Smith; for the best greenhouse plants, to the same; for the 2d best ditto, to Wm. Hall; for the best and most interesting collection of plants, in pots, to A. Henderson; for the 2d best ditto, to Andrew Dryburgh; for the 3d best, to B. Gulliss, gardener to Jacob Snider, Jr.; for the best display of indigenous, plants, to A. Henderson; for the best bouquet, to William Hall; for the 2d best, to A. Henderson; for the best basket of Flowers, to Wm. Hall; for the 2d best basket, to A. Henderson. A special premium, of three dollars, for some fine seedling Cinerarias, to Wm. Hall. The committee mention with pleasure, seventy-two varieties of the Camellia, exhibited by Peter Mackenzie: five of them were never exhibited in the society before, viz. C. Lowii, Alexina, Nobilissima nova, Gutheriana and Sulcata; besides many tables of plants in fine flower.

The committee on fruits report, that the only articles requiring their attention are a dish of the Percival Strawberries, and three bunches of Grapes, Black Prince and Muscat blanc hatif, which appear to be in fine eating order; to the former we award a premium of one dollar, and to the latter two dollars; exhibited by James Bisset, gardener to James Dundas.

Dr. Brinckle reported, that he had received, on the 1st inst. from A. J. Downing, a package of scions of the genuine Peach Plum, the Columbia Plum, the Autumn Gage, Ladies Sweeting Apple, and the Townsend, a native fall apple, said to be very fine; such as he did not require he handed to the appropriate committee for distribution in Mr. Downing's name. Ordered that the thanks of the society be presented to the donor.

The corresponding secretary reported letters from the following honorary and corresponding members recently elected, which were read, presenting their thanks for their election, viz: Dr. Alfred S. Munson, president of New-Haven county horticultural society; George Gabriel, secretary of same; and Dr. Virgil M. Dow, of New-Haven: also a communcation accompanying grafts of some of their new Pears, natives of New-Haven, from Dr. V. A. Dow, in behalf of Ex-Gov. Edwards, Dr. Munson, and Geo. Gabriel and himself, fully describing the varieties. On motion, ordered that the thanks of the society be tendered, for such a valuable acquisition. The scions had been distributed by the committee for distributon of seeds, etc.

Robert Buist presented to the society his treatise on the cultivation of vegetables. Ordered that the thanks of the society be presented for the gift.

THE stated meeting for May was held on the evening of the 18th, in the grand saloon of the Philadelphia Museum. The President in the chair.

The exhibition on the occasion was very fine; and the saloon thronged with the beauty and elite of the city. The collection of plants displayed choice specimens in greater variety than usual. Mr. Dundas' gardener exhibited a table of rare and interesting specimens, among which were a number of Epiphytes, Oncidium papilio—the butterfly plant, etc.; and another of select Pelargonia. The President's gardener presentedhandsome hot and greenhouse plants—Achimenes longiflora, A. grandiflora in full flower, grown suspended as air plants; a fine specimen of Oncidium flexuosum, and seedling Cinerarias, Pelargonia and bouquets. B. Gulliss, gardener to Jacob Snider, jr., presented a superb collection, and a table of Pelargonia. John Sherwood, the choicest varieties of Roses. Archibald Henderson, a table of cut flowers of indigenous plants, and a basket of natives—very attractive. The Tulips from Gen. Patterson's garden, and from Jonathan Bass', Bustleton, were remarkably fine.

Of Fruit, there were presented a dish of apples, the Northern Spy from Messrs. Ellwanger & Barry's nursery, Rochester, New-York, of unsurpassed beauty—a dish of lemons, another of strawberries, from Mr. Dundas' greenhouse.

Of Vegetables, there were excellent specimens. Thomas Hancock, of Burlington, N. J., exhibited splendid Victoria Rhubarb. James McKee, gardener to Chas. Chauncey, Burlington, presented very fine cauliflowers, new potatoes of large size, and cucumbers. John Riley, gardener at Insane Asylum, numerous heads of cauliflowers. John Sherwood, Sea Kale, Antony Felten, and Isaac B. Baxter, extensive collections.

The Committee on Fruit, report: That their attention has been called to a dish of very fine Apples, of the variety of Northern Spy, of great beauty, and in the highest state of preservation; these were received per hands of our Secretary, Tho. P. James, from the nursery of Ellwanger & Barry, Mount Hope, Rochester, N. Y., for which we recommend a special premium of two dollars.

Also, a dish of very fine Lemons and Strawberries from the greenhouse of James Dundas.

The Committee on Vegetables, report: For the best cucumbers, to James McKee, gardener to C. Chauncey. For the best potatoes, to the same; for the second best, to Anthony Felton. For the best rhubarb, 12 stalks, to Thomas Hancock; for the second best, to Anthony Felton. For the best and most interesting display of vegetables, to Anthony Felton; for the second best, to Anthony Felton. Special premiums were awarded; For a fine display of cauliflowers, three dollars, to James McKee; for another fine display, of ditto, of two dollars, to John Riley, gardener to Insane Hospital; and for a fine display of sea kale, two dollars, to John Sherwood.

David Landreth, V. P. editor of Johnson's Gardener's Dictionary, presented to the society, a copy of that work; when, on motion, ordered, that the thanks of the Society be presented to the donor.

Ordered, That the sum of three hundred dollars be appropriated, for the increase of the Library.

Members elected.—Wm. G. Allen, Samuel T. Altemus, Dr. I. D. White. J. Francis Fisher, and Joseph L. McNeill.

On motion, adjourned. THO. P. JAMES, *Rec. Sec'y.*